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ANNUAL REPORT

on the

PUBLIC HEALTH

of

WORCESTERSHIRE,

1928.

by

WYNDHAM PARKER, M.C.,

M.B., Ch.B. (Edin.), D.P.H. (Lond.)

County Medical Officer.



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Report of Chief Tuberculosis Officer



TO THE
COUNTY COUNCIL OF WORCESTERSHIRE.

MR. CHAIRMAN, MY LORDS, LADIES AND GENTLEMEN,

Annual Report, 1928.

1. I have the honour to present my report on the health of the County during the year 1928.

2. As far as possible, I have included a record of any important action taken by the Local Sanitary Authorities in reference to Health matters, but as all the District Annual Reports have not yet been received I am unable to present a complete survey of local work.

3. This year I have endeavoured to shorten this report by not repeating information which was given last year and which still represents fairly accurately the present position.

County Public Health Staff.

4. During 1928 the Council lost the valued services of Dr. Emily Noel Paterson.

5. Dr. Eileen Bulmer, a part time Officer, took the place of Dr. Paterson and Dr. Vera Cullwick, part time, succeeded Dr. Bulmer.

District Sanitary Officers.

6. The following changes have taken place since my last Report :—

SHIPSTON-ON-STOUR RURAL.

Dr. W. C. C. Easton succeeded Dr. G. Findlay as Medical Officer.

KIDDERMINSTER RURAL.

Dr. Smeeton Johnson succeeded Dr. B. Addenbrooke as Medical Officer.

TEWKESBURY RURAL.

Mr. E. H. Rosser succeeded Mr. E. F. Brading as Sanitary Inspector.

Hand-book of County Health Services.

7. A second Edition has been circulated which gives up-to-date information as to the Health Services available in the County.

Alteration of County Districts.

8. On the 1st April 1928, part of Warley in the Oldbury Urban District was transferred to Smethwick Borough, with a consequent loss to the County of 571 acres and a population of approximately 10,000.

9. At the end of 1928, an Order was made by the County Council, by which a part of the parish of Pedmore was transferred from the Bromsgrove Rural District to the Lye and Wollescote Urban District.

10. The question of the extension of the boundaries of the Redditch Urban District is still under consideration.

Vital Statistics.

11. Table I. gives the Vital Statistics for the Year.



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12. The following figures give particulars of the County rates for the past 26 years :—

Years.			Birth Rate*	Net Death Rate*	Infantile Mortality Rate†
1903-07	—	—	26.6	14.4	114
1908-12	—	—	23.4	12.9	99
1913-17	—	—	20.0	13.7	90
1918-22	—	—	19.6	13.3	68
1923-27	—	—	17.6	11.7	63
1928	—	—	16.5	11.8	64
England and Wales 1928	—		16.7	11.7	65

*Per 1000 of the population. †Per 1,000 of the births registered.

Birth-rate.

13. It will be seen from the above Table that the Birth-rate has fallen below that of England and Wales and is now well below the average figures of the War years, although the year 1917, when the County rate was 15.9, still constitutes a record. The most significant feature of this fall is the approximation of the Urban Birth-rates to the Rural. The relatively younger population of the towns has in the past been causal of a difference of about 2 per thousand in the number of births, which in recent years has been reduced to 1 per thousand or, put in another way, the fall in the Birth-rate has been even more marked in Urban than Rural areas.

Prevalence of, and Control over, Infectious Diseases.

14. Table II. shows the number of cases of Infectious diseases notified in each Sanitary district, viz. :—

TABLE II.

District.	Smallpox		Scarlet Fever.		Diphtheria and Membranous Croup.		Enteric Fever.		Puerperal Fever.		Puerperal Pyrexia		Pulmonary Tuberculosis.		Non-Pulmonary Tuberculosis		Ophthalmia Neonatorum.		Acute Poliomyelitis		Pneumonia		Encephalitis Lethargica.	
	Cases	Deaths	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	(a) Deaths.	Cases	Deaths.
<i>Urban</i>																								
Bewdley Borough			1		22	3					1		3	2	5	1					3	1		
Bromsgrove			32		7		1						12	6	3	1	4				4	5		
Bromsgrove North			22	1	10	2							9	6	4	1	1				5	4		1
Droitwich Borough							3						6	4	1	2						2		
Evesham Borough			2				1		1		1		14	8	10	2						4		
Halesowen			20		21	3	1				11		23	16	11	5	3				27	20		1
Kidderminster Borough			91		16	2	1		2		8		37	25	38	6	3				49	29	2	2
Lye and Wollescote			6		21		1	1			1		11	13	10	1	1				27	12		1
Malvern			18		10	1	2			1			5	7	2	2	1				21	10	3	1
Oldbury			23		24	1			2	1	9		51	29	20	7	5				87	38	2	5
Redditch	1		21		4				1		5		19	11	8	2	1		1		48	9		1
Stourbridge Borough			6		58	5	3		1		1		15	16	11	1	2				23	13		1
Stourport			25		4								1	2	5	2	1				9	3		
Totals	1		267	1	197	17	12	2	7	2	37		206	145	128	33	22		1		303	150	7	13
<i>Rural</i>																								
Bromsgrove			24		14		2			1			11	9	8	2	2			1	12	14		
Droitwich	1	1	18		2				1	1	2		19	8	4						7	8	1	
Evesham			20	1					1		2		18	8	6	1	1					5	1	
Feckenham			6		4				1				6	7	3						1			
Kidderminster			7		5					1	3		9	7	5	2	1				12	8		
Martley			25		4				1		6		15	7	10	2			1		9	6		
Newent (part)														1										
Pershore			9		6						5		12	7	2		3		1		10	6	1	
Pershore			3		4						1		1		2						6	3		
Rock			1										4	2							6	4		
Shipston-on-Stour																						1		
Stow-on-the-Wold (part)																						4		
Tenbury			4		5	1			1				5	2			2				3	4		
Tewkesbury (part)			3										1	1							1			
Upton-on-Severn			15		5		3				1		15	5	11	3	3				19	7	1	1
Winchcombe (part)																								
Totals	1	1	135	1	49	1	5		5	3	20		116	64	51	10	12		1	2	85	67	4	1
Grand Totals	2	1	402	2	246	18	17	2	12	5	57		322	209	179	43	34		2	2	388	217	11	14

Cerebro Spinal Fever. One case was notified in Lye and Wollescote Urban District.

(a) The deaths refer to all cases of pneumonia, not those which are notifiable.

Scarlet Fever.

15. The annual average number of cases in the County for the last 20 years was 828 and the deaths 13.

16. In 1928 the cases numbered 402 and the deaths 2.

17. The treatment of Scarlet Fever with antitoxin has been found to have a most striking effect upon initial symptoms, especially the temperature, and is most useful in certain types of the disease. So far as I am aware, it is not used in this County to any extent.

18. The mildness of the present type of Scarlet Fever is demonstrated in the figures given above, where only two deaths occurred in 402 cases.

Diphtheria.

19. For the last 20 years the average number of cases was 294 annually and the deaths 31 annually.

20. In 1928 the cases numbered 246 and the deaths 18.

21. The Public Health and Housing Committee have agreed to assist any Local Authority undertaking Schick testing by giving publicity in Schools or Welfare Centres to the arrangements for, and objects of, the procedure. The Oldbury Urban District Council have immunised a certain number of children and one other Authority is considering making such provision.

22. In America and certain European Countries, observers record that in their opinion the type of Diphtheria is becoming more severe and the case mortality (the percentage of deaths per 100 cases) appears to confirm this view. The case mortality in Worcestershire, 7%, whilst not exceptional, indicates the danger of this disease.

23. The experience of the London Fever Hospitals cannot be repeated too often, namely that the case mortality bears a definite relation to the stage of the disease when antitoxin is first given. If given on the first day the mortality is nil, the second day 3%, the third day 6%, and so on; each day subsequently the risk increases. In pre-antitoxin days the case mortality amounted to 30%.

24. Diphtheria is a disease which requires nursing and treatment. The Isolation Hospital is even more important with this object in view than the control of the spread of disease and the dislocation of family life following isolation in the home.

25. The resulting immunity produced by the Schick method is slowly developed in the individual. So far the national response to this new form of protection is small. Treatment with anti-toxin will remain the principal safeguard against mortality from diphtheria for many years to come.

26. During the year there were four somewhat troublesome outbreaks of Diphtheria viz. at Bewdley, at Stourbridge, at Lye and more recently at Malvern.

27. The Local Medical Officers of Health were able in due course to stamp out the outbreaks.

28. Assistance was given by the Assistant County Medical Officers chiefly in the direction of swabbing school children. The spread of Diphtheria is very largely by the carrier. In one of the above outbreaks the origin was traced to a child who had been treated for Diphtheria in an Isolation Hospital outside the County and subsequently came to Worcestershire for convalescence. This child still harboured the organisms of Diphtheria in the throat and caused an outbreak of over 20 cases in a small town.

29. In a second district it was discovered that a School Master although he had no signs of Diphtheria was carrying virulent germs and was thus a possible source of infection.

30. These two instances given illustrate two distinct types of carrier, the one who has apparently recovered from the disease and the other who has had no recognisable symptoms of the disease at all. The swabbing of contacts and suspects provides the means by which such carriers can be detected, but in Urban districts it must be carried out with a sense of proportion, otherwise the numbers of suspect carriers become too numerous. All suspect carriers are excluded from school and reswabbed at weekly intervals. If the microscopic test remains positive for three weeks a virulence test is carried out; if this is negative, no further precautions are taken, but if positive, exclusion is continued.

Malaria.

Infantile Paralysis.

Cerebro Spinal Fever.

Encephalitis Lethargica.

31. The notification of Infantile Paralysis is not carried out fully, largely because the diagnosis is often not arrived at during the acute stage of the disease. In two Districts deaths are recorded although no notifications were received.

32. There were eleven cases of Encephalitis Lethargica notified and 14 deaths recorded. Some of these may have been carried forward from the previous year but it is unlikely that notification is fully carried out.

33. One case of Cerebro Spinal Fever was notified, although two cases are recorded as having died of this disease.

Measles.

34. There were 19 deaths (11 Urban, 8 Rural) from Measles in 1928 as compared with 37 deaths in 1927 and 8 in 1926.

35. Last year I stated that the treatment of Measles in Institutions should be considered when the question of Isolation Hospital accommodation for areas is under review. The principal aim would be not to control the infection, but to provide suitable accommodation and nursing for cases in need of it, and who could not obtain it at home. It would not be possible, or even necessary, to admit all cases of measles, and the selection could best be made by the Medical Officer of Health, on the grounds that the case was severe and urgently needed nursing, or that the overcrowded and unsatisfactory home surroundings rendered adequate home treatment impracticable.

36. Lives might be saved by using the beds, which are now vacant for the greater part of the year, for nursing of cases of measles coming from overcrowded and unsatisfactory homes.

Anthrax.

37. No deaths from Anthrax were reported during 1928.

38. In a trade, such as the manufacture of carpets, which is extensively carried out in this County, the absence of fatal cases of anthrax is satisfactory.

39. The policy of disinfection which was advocated in 1918 by the Departmental Committee is in part responsible for this improvement, but early diagnosis and effective treatment has also considerably lowered the mortality.

40. The Annual Reports of the Medical Officer of Health of Kidderminster Borough for the years 1919-1928 show that 11 cases of Anthrax occurred in the period with only one death (in 1920.)

Enteric (Typhoid) Fever.

41. The following Table shows the numbers of cases and deaths since 1904, viz. :

Years.				Cases.	Deaths.
1928	—	—	—	17	2
1927	—	—	—	22	2
1926	—	—	—	11	4
1925	—	—	—	5	—
1924	—	—	—	16	2
1919–1923	—	—		*21	*3
1914–1918	—	—		*21	*2
1909–1913	—	—		*55	*12
1904–1908	—	—		*107	*19

* Annual Average.

42. Three cases occurred in both Droitwich and Stourbridge Boroughs and three in Upton-on-Severn Rural District. No connection in origin could be traced in any of these instances.

Influenza.

43. 63 deaths were due to Influenza in 1928.

44. The numbers in previous years were :—

1927	—	—	255 deaths.
1926	—	—	83 „
1925	—	—	131 „
1924	—	—	186 „
1923	—	—	77 „
1922	—	—	153 „
1921	—	—	52 „
1920	—	—	80 „
1919	—	—	336 „
1918	—	—	994 „

45. The number of cases is unknown as the disease is not notifiable but no appreciable outbreak occurred as instanced by the fact that no schools were closed in 1928 for influenza.

46. The outbreak in the early months of 1929 was severe and widespread.

Smallpox.

47. Two cases of Smallpox occurred in 1928, one at Redditch and one in the Droitwich Rural District.

48. The source of infection was undiscovered in both cases.

49. Both cases were isolated at the Worcester Smallpox Hospital where a hut had been erected adjoining the City Hospital.

50. The Redditch case was an adult (aged 41) employed on a threshing machine. The rash was scanty and mainly on the face and neck. Vaccination had been carried out in infancy.

51. The diagnosis was doubtful at first ; an expert appointed by the Ministry of Health expressed the view that the case was one of smallpox. No cases were discovered in the Warwickshire or Worcestershire parishes where the threshing machine was working either before or after the occurrence of this case.

52. The case made a good recovery.

53. The Droitwich Rural case was a women aged 24, who had been vaccinated in infancy.

54. This case was employed on a farm where hop-pickers had been accommodated from out County districts but no smallpox was known to have occurred amongst the pickers.

55. The patient was very ill from the onset and died.

56. No other cases occurred.

57. There were several cases in the City of Worcester but these were unconnected with the two County cases.

58. The following Table shows the numbers of cases which occurred in England and Wales and in the County since 1911.

Year.	England and Wales.		Worcestershire.	
	Cases.	Deaths.	Cases.	Deaths.
1911	289	23	0	0
1912	121	9	0	0
1913	113	10	0	0
1914	65	4	0	0
1915	93	13	1	0
1916	159	18	0	0
1917	7	3	0	0
1918	63	2	0	0
1919	311	28	0	0
1920	280	30	0	0
1921	336	5	0	0
1922	973	27	0	0
1923	2,504	7	1	0
1924	3,792	13	0	0
1925	5,355	9	1	0
1926	10,095	18	0	0
1927	14,764	47	0	0
1928	12,433	58	2	1
Total - -	51,753	324	5	1

Heart Disease.

59. It is rather striking to observe that out of 3,667 deaths in the County no less than 644 (18%) were due to "Heart Disease."

60. There is little doubt that rheumatism contracted in childhood is the cause of many of these deaths. The incidence of rheumatism in elementary school children is receiving the special attention of the School Doctors in the County.

Cancer.

61. The deaths from Cancer in 1928 numbered 468 as compared with 442 in 1927. The death rates from this disease will be seen from the subjoined Table.

TABLE III.
Death-rate per 10,000 of Population.

Districts	1928	Average for quin- quennial period 1923-1927	Average for quin- quennial period 1918-1922	Average for quin- quennial period 1913-1917	Average for quin- quennial period 1908-1912	Average for quin- quennial period 1903-1907
<i>Urban Districts.</i>						
Bewdley Borough ...	23.0	18.4	12.8	17.5	15.6	8.8
Bromsgrove ...	15.4	12.1	6.4	11.4	12.0	7.2
North Bromsgrove ...	12.3	9.7	12.3	10.2	7.6	8.6
Droitwich Borough...	12.6	19.5	24.4	15.1	8.0	11.1
Evesham Borough ...	17.5	12.5	14.0	9.3	8.4	7.2
Halesowen ...	15.0	9.3	9.8	7.3	7.1	5.0
Kidderminster Borough ...	19.6	14.6	13.7	13.5	10.0	8.9
Lye & Wollescote ...	16.5	10.4	12.0	7.4	8.0	5.3
Malvern ...	17.2	15.2	15.7	14.8	15.9	9.4
Oldbury ...	11.5	10.7	9.0	8.4	8.0	6.2
Redditch ...	12.7	16.4	10.6	10.3	11.1	8.9
Stourbridge Borough	16.3	13.3	14.1	9.9	9.8	8.6
Stourport ...	9.7	21.3	24.4	17.8	11.5	12.8
Urban Districts ...	15.1	14.1	11.8	10.5	9.3	7.7
<i>Rural Districts.</i>						
Bromsgrove ...	12.7	13.7	10.5	11.7	8.0	8.3
Droitwich ...	16.3	15.7	10.6	11.5	9.6	9.4
Evesham ...	16.2	14.6	11.5	13.3	9.6	9.1
Feckenham ...	18.6	13.9	10.9	12.6	9.5	8.8
Kidderminster ...	14.3	13.3	12.2	9.4	13.9	11.1
Martley ...	13.8	14.9	11.5	14.2	11.3	8.8
Newent (part) ...	29.0	31.4	21.2	5.2	19.0	14.0
Pershore ...	11.4	13.1	13.1	11.0	9.9	8.4
Rock ...	21.8	12.6	14.4	24.5	10.5	9.1
Shipston-on-Stour ...	18.0	14.7	13.9	12.0	10.6	13.0
Stow-on-the-Wold (part) ...	36.1	29.2	28.8	13.4	13.3	13.7
Tenbury ...	15.9	15.9	9.4	10.6	10.9	8.1
Tewkesbury (part) ...	14.3	14.9	13.2	10.3	7.8	8.5
Upton-on-Severn ...	16.4	13.6	10.8	12.8	12.4	9.4
Winchcombe (part)	0.0	0.0	19.0	0.0	0.0	0.0
Rural Districts ...	15.0	15.4	11.6	12.0	10.2	8.6
County ...	15.1	14.8	11.6	11.0	9.6	8.2

61a. * Cancer is a local disease, and so long as it remains local it can be cured by surgical removal, whereas if it has spread to other parts of the body it is difficult, if not impossible, to arrest its course. As a local disease it may present no specific signs or symptoms, there may be no fever, no pain, no feeling of illness. There is merely a small swelling which, in an accessible site such as the skin, tongue or the breast, can be seen or felt. If and when it occurs in an inaccessible site such as the stomach or uterus, it is difficult to recognise the disease until it is sufficiently advanced to produce signs and symptoms. In the second place it must be borne in mind that cancer is due to an autonomous and irregular multiplication and growth in the cells of a particular organ, in animals as well as man, occurring in man almost exclusively in middle age or upwards. As the growth extends cells may become detached and carried, by means of the blood or tissue fluids, to other parts of the body, thus becoming generalised. In the third place it may be said that although the number of death certificates in which death is attributed to cancer has greatly increased in recent years (except in one site or probably two sites), it must not be assumed that cancer itself is increasing at an alarmingly rapid rate. Indeed, if there be any increase it is probably slow, though owing to a raising of the age distribution of the population, and to greatly improved diagnosis, very many more deaths are attributed to cancer than formerly.

62. Fourthly, steady progress has been made both in the knowledge and "cure" of this disease. It has been shown in the reports of the Ministry issued during the last three or four years that cancer localised to the breast, and to the neck and body of the uterus, can be readily removed, and the patient may live free from any sign of the disease for many years after the operation. The therapeutic use of radium has also made much more hopeful the arrest of this malady. In regard to prevention, it is now known that whatever be the original cause of the disease, conditions of chronic irritation induce or predispose to its occurrence. There are chemical agencies (such as tar and shale oil), certain physical agents, and living and organic agents which may set up the chronic irritation which tends to lead to cancer. If these chronic irritations be removed or reduced, cancer itself may be reduced. The prevention of a number of forms of chronic irritation, such as those to which chimney sweepers, mule-spinners and some of the tar workers have been subjected in the past, may lead eventually to a decline in the liability to cancer of such workers. For the removal of a source of chronic irritation is a preventive measure against cancer.

* Annual Report of Sir George Newman, 1927.

Tuberculosis.

63. 322 cases of Pulmonary and 180 cases of Non-pulmonary Tuberculosis were notified in 1928.

64. The corresponding number of deaths were Pulmonary 209 and Non-pulmonary 43.

65. The Report of the Chief Tuberculosis Officer will be found in the Appendix.

66. It was not necessary to take proceedings to enforce the admission of any case of Tuberculosis to Hospital although the possession of such authority is a useful measure of persuasion in certain cases.

67. So far as the Tuberculosis Regulations of 1925 are concerned action was taken in two cases to ensure that Tuberculous workers in the milk trade should refrain from following this employment.

Venereal Diseases.

68. The following Tables give information as to the numbers of cases treated in the County.

VENEREAL DISEASES. SUMMARY, 1928.

TABLE IV.

Treatment Centre.	"NEW" OUT-PATIENTS.					"NEW" IN-PATIENTS.					Total Attendances of all Patients.					SALVARSAN SUBSTITUTES.		No. ceasing attendance without completing treatment
	Syph- ilis.	Gonorr- hoea.	Soft Chancres	Not V.D.	Total	Syph- ilis.	Gonorr- hoea.	Not V.D.	Total days.	Syph- ilis.	Gonorr- hoea.	Soft Chancres	Not V.D.	Total attend- ances.	No. treated	No. of doses		
*Worcester	16	25	—	24	65	2	3	—	405	347	585	—	132	1064	54	69	36	
Kidderminster	17	19	—	52	88	5	4	—	416	332	549	—	64	945	58	182	40	
Birmingham	17	18	—	20	55	1	1	—	58	816	1658	—	30	2504	107	699	26	
Dudley	3	16	—	8	27	—	—	—	—	41	1162	—	31	1234	14	14	—	
Stourbridge	10	1	1	21	49	3	—	—	46	343	2416	16	43	2818	38	167	28	
Totals	63	95	1	125	284	11	8	—	925	1879	6370	16	300	8565	271	1131	130	
Totals for previous year (1927).	57	125	—	115	297	5	16	6	716	1596	5809	—	233	7598	294	1126	141	

* These figures refer to County cases only.

This Table compares the number of County cases treated at Clinics in 1928, with those in the six preceding years, viz. :—

TABLE V.

Year	* Worcester			Kidderminster			Birmingham			Dudley			Stourbridge			Grand Total 1922-1928
	Syphilis	Gonorrhoea	Total	Syphilis	Gonorrhoea	Total	Syphilis	Gonorrhoea	Total	Syphilis	Gonorrhoea	Total	Syphilis	Gonorrhoea	Total	
1922	26	17	43	46	14	60	14	12	26	25	29	54	9	9	18	201
1923	21	16	37	44	19	63	17	22	39	38	41	79	24	24	33	251
1924	20	22	42	39	11	50	19	21	40	7	10	17	14	14	22	171
1925	17	17	34	29	13	42	9	29	38	17	11	28	13	13	16	158
1926	9	27	36	28	15	43	12	19	31	4	19	23	7	23	30	163
1927	18	26	44	15	23	38	12	27	39	4	16	20	8	33	41	182
1928	16	25	41	17	19	36	17	18	35	3	16	19	10	17	27	158

* These figures refer to County cases only.

69. These Tables give an indication of the work carried out for Worcestershire patients.

70. The points on the 1928 figures are :—

- (1) The increase, previously noted, in the number of new cases of Gonorrhoea attending Centres has apparently stopped. The figures of new cases from 1925–28 are 83, 103, 125 and 95.
- (2) The increase in the amount of in-patient treatment for Syphilis has more than counteracted the fall in the number of cases of Gonorrhoea.
- (3) 130 cases (as against 141 in 1927) ceased attendance without completing treatment in 1928.

71. On the question of compulsory notifications Sir George Newman writes in his last Report “ any compulsory treatment to be “ effective upon the community must be applied to all cases of “ V.D. and not to those only who have commenced but failed to “ complete treatment. It seems at present impracticable to “ fulfill these conditions.”

Vaccination.

72. The Local Government Act transfers the functions of Guardians relating to Vaccination to County Councils which duties will be carried out as part of the Public Health Service.

73. There is no fresh information to record relating to the vaccinal conditions of the County.

Maternity and Child Welfare.

74. Last year I gave a comprehensive survey of the work carried out in the County under this heading so that I propose this year to considerably curtail my remarks.

A. Midwifery Service.

75. In 1928, there were 258 Midwives practising in the County and of these only 26 were untrained.

76. No untrained woman has been allowed to commence practice since 1909 and those remaining are of an elderly type who attend few cases. Each is closely supervised by your Medical Officers.

77. Sixty-three District Nursing Associations received Midwifery Grants amounting to £885 and 3 Midwives were given subsidies of £10 each.

78. Difficulties in providing Midwives still exist in some sparsely populated parts of the County and as the Council are responsible for the efficiency of the County Midwifery Service it is probable that larger expenditure in this direction will be necessary in the near future.

79. The No. of Births *registered* in the County was 5,108.

80. Of the 5046 Births *notified* during 1928, 2952 were attended by Midwives, and in 986 cases the aid of a medical man was required.

81. In 602 of these 986 cases, the Doctors claimed their fee from the County Council and a sum of £1,043 was passed for payment in respect thereof as against £767 in 1927.

82. £141 11s. 0d. was recovered from patients.

83. The following tabular statement may be interesting :—

	1924	1925	1926	1927	1928
Number of cases where Midwife sent for Doctor	744	764	721	966	986
Number of claims by Doctor on County Council for payment of fee.	250	329	375	516	602
Total fees paid by County Council	£395 3 2	£506 1 2	£537 0 0	£767 7 5	£1043 4 6
Amount recovered from patients	£98 0 0	£73 15 7	£74 16 0	£112 11 7	£141 11 0

84. In the 986 instances (amounting to 33.4% of the cases attended) the emergencies for which the doctor was called have been summarised in the following table :—

In respect of :

Complications of Pregnancy.

Ante Partum Haemorrhage and Placenta Praevia	—	24
Abortion and threatened abortion	— — —	46
Excessive sickness	— — — —	5
Puffiness of hand and face	— — — —	3
Fits and Convulsions	— — — — —	—
Purulent discharge and sores of genitals	— — — —	7
Albuminuria	— — — — —	12
Bad varicose veins	— — — — —	—
Other forms of ill-health	— — — — —	12

Labour.

Haemorrhage	— — — — —	26
Abnormal presentation	— — — — —	62
Uterine Inertia and prolonged labour	— — — — —	216
Ruptured perinaeum	— — — — —	214
Fits or Convulsions	— — — — —	1
Adherent placenta or membranes	— — — — —	38
Still birth	— — — — —	13
Premature labour	— — — — —	9
Other causes	— — — — —	71

After Labour.

(On account of Mother).

Fits or Convulsions	— — — — —	3
Abdominal swelling and tenderness	— — — — —	2
Offensive lochia	— — — — —	3
Rise of temperature	— — — — —	36

(On account of Child).

Jaundice	— — — — —	5
Asphyxia	— — — — —	10
Discharge from eyes	— — — — —	61
Feebleness	— — — — —	55
Malformation	— — — — —	1
Pemphigus and other skin eruption	— — — — —	10
Inflammation about or haemorrhage from navel	— — — — —	2
Convulsions	— — — — —	—
Unsatisfactory condition of child	— — — — —	8
Other causes	— — — — —	31

986

Ophthalmia Neonatorum Cases 1928.

85. There were 34 notified cases in 1928 as against 29 in 1927. Eighteen of these were very slight cases. Seven babies and Mothers received in-patient treatment in the Worcester Eye Hospital, 3 in Birmingham, 2 in Kidderminster and 1 in Dudley Hospital.

86. One case was treated in Hospital for 50 days, another 28 days and the remainder 16 days or under.

87. One case was treated as a Hospital out-patient and in 4 cases arrangements were made for District Nurses to give the necessary treatment under the supervision of the local Doctor.

88. In 32 cases recovery without impaired vision resulted, 1 case is still under treatment, and in the remaining case, the baby is blind in one eye.

89. The Central Midwives Board Rule relating to discharging eyes is generally carried out but in two cases where Midwives failed to comply with the Rules, Inquiries were held and the facts were reported to the Administrative Health Committee who referred the details to the Central Midwives Board.

90. The arrangement by which the Council refrain from recovering the cost of treatment in Eye cases continues and is certainly very helpful in getting the slighter cases under early observation. In one case only was the parent able to make the necessary arrangement for treatment apart from the County Scheme.

Puerperal Fever and Puerperal Pyrexia Regulations.

91. Twelve cases of Puerperal Fever and 57 cases of Puerperal Pyrexia were notified in 1928. The majority of the latter were definitely connected with parturition.

Consultants.

92. A second opinion was asked for and provided in 18 cases. Twelve consultations were asked for in Urban Districts and 6 in Rural. The cost of this service was £63 12s. 0d.

93. Professor Beckwith Whitehouse has kindly consented to allow his name to be added to the list of Consultants willing to assist Practitioners who ask for a second opinion.

Hospital Treatment.

94. Twenty-six cases were treated in Hospital. The patients were admitted to the Worcester Infirmary, The Birmingham General and Sparkhill Hospitals, and also the Kidderminster and District General Hospital. The cost of this service amounted to £177 4s. 3d.

95. *Nursing assistance.* A Nurse was supplied in one case.

Deaths from sepsis—

96. Five cases died from Puerperal Sepsis in 1928 as against 13 in 1927. All these 5 cases were notified. Two were notifications received in 1927 who died in 1928. Two of the 3 fatal 1928 cases were treated in Hospital but both died within 4 days of admission.

97. In addition three other cases treated in Hospital died, one from Pneumonia and two from Peritonitis.

Maternal Mortality.

98. Deaths from other accidents numbered 15 as against 19 in 1927.

99. The total maternal deaths in 1928 were 20, which although far from satisfactory is an improvement on the figure 32 of 1927.

100. It would not be wise to draw any inference from these figures, as the rate for a single year is often very misleading.

District.	Notifications of Puerperal Fever		Puerperal Pyrexia	Deaths from Sepsis	Other Maternal Deaths.
URBAN.					
Bewdley —	—	—	1	—	—
Evesham —	—	1	1	—	1
Halesowen	—	—	11	—	1
Lye —	—	—	1	—	—
Kidderminster	—	2	8	—	2
Malvern	—	—	—	1	—
				(1927 case)	
Oldbury —	—	2	9	1	3
Redditch —	—	1	5	—	1
Stourbridge	—	—	1	—	1
Stourport	—	1	—	—	—

District.	Notifications of Puerperal Fever.		Puerperal Pyrexia.	Deaths from Sepsis.	Other Maternal Deaths.
RURAL.					
Bromsgrove	—	—	—	1 (1927 case)	1
Droitwich	—	1	2	1	1
Evesham —	—	1	2	—	—
Feckenham	—	1	—	—	1
Kidderminster	—	—	3	1	1
Martley —	—	1	6	—	—
Pershore —	—	—	5	—	1
Rock —	—	—	1	—	—
Shipston-on-Stour	—	—	—	—	1
Tenbury —	—	1	—	—	—
Upton-on-Severn —	—	—	1	—	—
		—	—	—	—
TOTALS	—	12	57	5	15
		—	—	—	—

Institutional accommodation for Maternity Cases.

101. The most important step to combat the unsatisfactory maternal mortality rate has been taken in this County namely, the provision of hospital treatment for complications of labour and pregnancy.

102. Previously hospital treatment was only provided for cases notified under the Puerperal Fever and Pyrexia Regulations and this has been found very helpful, but prevention rather than cure is aimed at, and by providing suitable accommodation for these difficult cases, it is hoped that some of these unfortunate complications will not arise.

103. The Worcestershire Federation of Womens Institutes have given much thought to this problem, and the subject was discussed at their annual meeting ; as a consequence the various County Voluntary Hospitals were approached in the hope that they could provide some accommodation for maternity cases, although no results have yet accrued. I understand that additional accommodation at Worcester is still under consideration.

104. At Stourport a model Maternity Home has been erected and equipped. This Hospital was provided by Sir Julian Cahn who has presented it to Mrs. Stanley Baldwin. The Hospital which will be known as the Lucy Baldwin Maternity Hospital, will accommodate 10 patients.

105. The Hallam Maternity Hospital (West Bromwich Union) receives cases from the Oldbury Urban District; the number of women who use this Hospital is increasing rapidly.

106. The Wordsley Institution (Stourbridge Union) has a very suitable maternity unit and an extension of the arrangements to accept private cases who may be attended by their own doctors if necessary, is likely to make the provision more generally useful and acceptable in the district.

107. Difficult labour cases are by arrangement admitted to Worcester Infirmary and the Loveday Street Maternity Hospital, Birmingham.

108. No arrangements at present exist by which consultants opinion on difficult labour cases can be obtained; this is a link in the chain of very great importance, but there is of necessity considerable difficulty in making practical suggestions as to how such provision could be made in country districts.

109. Each Maternal death is now the subject of enquiry and the form of report is sent under confidential cover to the Ministry of Health. The object of the enquiry is purely scientific and each report is placed before a Committee (which includes specialist doctors) who will in due course report to the Ministry of Health. As the recommendations of this Committee will presumably be based upon a study of the fatal cases occurring throughout the whole Country, the report should be of particular value in demonstrating the deficiencies of our existing arrangements, and should indicate the special direction which preventive action should take.

110. 191 Stillbirths were reported in 1928 as compared with an average of 198 over the last 10 years.

111. Special inquiries failed to elicit any common cause, but the Ante Natal Clinics established in the County should in course of time diminish the number of such cases.

B. *Infant Welfare.*

112. A total of 47,030 visits were paid to Infants in 1928, either by the County Health Visitors, District Nurses or Voluntary Agency Nurses.

113. The following details give a very good indication of the work carried out, viz. :—

County Council Centres.

Centre.	Average Weekly Attendances.			
Redditch	—	—	—	119
Oldbury	—	—	—	91
Langley	—	—	—	87
Lye	—	—	—	84
Halesowen	—	—	—	82
Cradley	—	—	—	63
Blackheath	—	—	—	109
Bromsgrove	—	—	—	60
Catshill	—	—	—	27
Rubery	—	—	—	19

Voluntary Agency Centres.

Centre.		Average Weekly Attendances.			
Malvern Centres	*Broadway	—	—	—	38
	*Alvechurch	—	—	—	22
	Evesham	—	—	—	40
	Stourbridge	—	—	—	88
	Malvern Link	—	—	—	35
	Poolbrook	—	—	—	21
	Newtown	—	—	—	46
	*Wyche	—	—	—	21
	*Tardebigge	—	—	—	17
	*Blockley	—	—	—	18
	*Fairfield	—	—	—	8
	†Upton-on-Severn	—	—	—	6
	Belbroughton	—	—	—	30

Kidderminster Corporation Centres.

Prospect Lane, Kidderminster	—	80
St. John's, Kidderminster	—	52
Orchard Street, Kidderminster	—	37

* Opened Fortnightly. † Opened Monthly.

114. I cannot speak too highly of the work carried out at the Voluntary Agencies. Not only does the County benefit financially, but it is very encouraging to receive the help of so many voluntary organisations and helpers, whose valuable services can only be recognised in a very incomplete manner.

Ante-Natal Clinics.

115. Special ante-natal sessions are held at 5 Centres in the County. The Halesowen, Oldbury and Langley Centres are administered by the County Council. The doctor at the Stourbridge Ante-natal Centre is one of the Assistant County Medical Officers. The Ante-natal Centre at Kidderminster is administered entirely by the Kidderminster Corporation.

				Average attendance.
*Halesowen	—	—	—	7
†Oldbury	—	—	—	23
†Langley	—	—	—	32
†Stourbridge	—	—	—	20
*Kidderminster	—	—	—	6

* Monthly. † Fortnightly.

116. The average attendance at Halesowen Ante-natal Clinic is disappointing and it is hoped that a better average will be obtained in this district, which is generally very enthusiastic over all Infant Welfare work.

Infant Mortality Rate.

117. The rates for the last five years have been :—

	Births.	Deaths under 1 year.	Infant Mortality Rate.
1924	5513	344	62
1925	5458	338	62
1926	5309	296	56
1927	5090	356	70
1928	5108	325	64

Baby Week.

118. These functions, which are assisted financially by the County Council, tend to foster interest in Infant Welfare, and the success obtained by Worcestershire Centres in National Mothercraft Competitions during the last three years is very striking. In the National competition of 1928, open to large and small districts, Worcestershire Centres secured second place in the one group and a first and second in the other. This was a very fitting and well deserved result of the very strenuous efforts by the Centres concerned.

Midwifery Training.

119. Grants amounting to £345 were made to the County Nursing Association in 1928 in respect of the training of Midwives.

Nursing and Maternity Homes.

120. The following action has been taken since the inception of the Nursing Homes Registration Act, viz. :—

Number of applications for registration	—	25
Number of Homes registered	—	23
Number of applications refused	—	2
Number of appeals	—	—
Number of applications for exemption	—	10
Number of exemptions granted	—	10

121. The Assistant County Medical Officers investigate all applications. All registered Nursing Homes are visited at least once a year and the reports made at these subsequent visits are placed before the Committee.

122. The applications refused related to premises without proper sanitary conveniences.

Local Government Act, 1929.

123. Under the provisions of the above named Act, the powers of the County Council in respect of matters relating to works of public health are considerably enlarged ; and set out below will be found a brief summary of these increased powers.

124. *Part I* of this Act deals with the transfer of the Poor Law functions from the Guardians to the County Council. Although these duties will be carried out by a new Committee (the Public Assistance Committee) one of the principal objects of this Act, viz., the improvement of the accommodation for the sick in the old Poor Law Hospitals and the added powers by which the County Council may make new provisions in this direction, must have a large influence upon the work undertaken by the present Health Committees.

125. The transfer of these functions in 1930 will, in all probability, produce little change in existing Institutional arrangements of Worcestershire to begin with, but if the object of the Act becomes the aim of the Council, certain ideals are presented, the chief of which may be termed the break up of the poor law where by

delegation of duties dealing with sickness and the care of young children to existing Health and other Committees, these services possibly at a later date will be distinct from the tramp and persistent pauper, who will still remain the responsibility of the Public Assistance Committee.

126. With this object in view County Councils under *Section 14 (1)* are given powers to provide "places for the reception of the sick."

127. The enlargement of Poor Law areas ought to result in the County Council being in a better position to classify the various Institutions as suitable for the infant, the aged, the sick, etc., than their predecessors, and the use of motor transport will assist in solving the problem, but the question of whether some of these old Institutions are capable of very much improvement is extremely doubtful.

128. At some later date it is assumed the Tuberculosis and Sanatorium Committee will be in a position to undertake the institutional treatment of all cases of tuberculosis quite apart from the poor law, and similarly, the Administrative Health Committee will make a similar declaration as to provision for the pregnant mother, the infant and the Mentally Defective, while the Public Health and Housing Committee might, in the same way, be entrusted with the provision of accommodation for the sick generally, which, after consultation with Voluntary Hospitals, is found to be needed for the area.

129. The success of the proposed alterations really depends upon how the Act is interpreted locally. I cannot help thinking that the best results in a county such as Worcestershire will only be obtained slowly.

130. Our objects and aims may be clear, but no sudden transformation is possible. A scheme based on local knowledge and requirements developed in the closest possible co-operation with the existing Health Committees eventually should produce a satisfactory result.

131. The immediate problem will be to put available Institutions to the best possible use by classification of cases, which one hopes will lead to the improvement of the better Institutions and, in due course, the abolition or replacement of the indifferent ones. The complication of joint ownership of Institutions requires solution before any scheme really can be decided upon.

Section 2. This provides that Vaccination shall be discharged by the Councils of Counties as functions relating to Public Health. This subject has been referred by the Local Government Act Committee to the Public Health and Housing Committee.

Section 14 (3). The Public Health and Housing Committee may now include members who are not members of the County Council.

Section 40. The Council may now act jointly with local authorities in the matter of town planning, or, in certain circumstances, may take over the duties of local authorities.

Sections 46 and 47. The present Sanitary areas must be reviewed and may be varied by the County Council. The initial survey will take place during the next two years and subsequent periodical (10-yearly) reviews are provided for.

132. The object of these two sections is to have some regular method by which the existing and future local authorities areas may be adjusted to meet the needs of changing circumstances. Some of the existing authorities areas are too small to form satisfactory independent sanitary units. The financial restrictions caused by the small rateable value make many necessary improvements impracticable ; and difficulty is from time to time met with owing to the area being too small to employ whole-time Specialist Sanitary Officers.

Section 53. This extends the maximum loan period from 30 to 60 years and also allows the County Council, with the consent of the Minister of Health, to appropriate land (including buildings), intended but not required for a particular object, for any other purpose for which they are authorized to make provision.

Section 56. Special expenses of a Rural District Council may now be charged as expenses for general purposes.

Section 57. The Council now have power to contribute towards the expenses of local drainage or water supply schemes, or, if a local authority is in default in carrying out such duties, their powers may be transferred to the County Council.

133. These two sections (56 and 57) are of the greatest importance. A Rural District Council can now assist a parish with a water supply or drainage scheme by spreading the whole or part of the cost over the area.

134. The County Council in the past could only act in default, but the financial restrictions made many obviously desirable and necessary improvements impossible. Under this Act the County Council may, after consideration of the resources of the area and the circumstances of the case, assist financially by such sums as appear to be reasonable. There is an instance in this County where a water supply was required and the work was commenced but could not be continued as the borrowing powers were exhausted. These added powers will be required to be exercised with caution, but it is hoped that the Council will take a broad view of the necessity for proper water supplies and drainage facilities in rural districts.

135. It will not be necessary to assume that all undertakings initially requiring assistance will always be unremunerative, as the subsequent development of areas with such facilities may be rapid and the added rateable value may alter the circumstances so that all the loan charges can be met.

Section 58. Arrangements must be made for securing that every Medical Officer of Health appointed in future shall be restricted from engaging in private practice and, where possible, districts may be combined for this purpose. Some modification in this matter may, however, be made if the Minister of Health so determines.

Section 59. Medical Officers of Health and Health Visitors must in future hold such qualifications as the Minister of Health may decree.

Section 63. The Council now have power to insist on sufficient Isolation Hospital accommodation being provided for all County districts.

136. The scheme which will have to be prepared provides for consultation with adjoining County Boroughs so that infectious cases occurring in Rural districts adjoining a Borough may, by arrangement, be admitted to the Hospital of the latter authority.

Section 74. The limit to the borrowing powers of local authorities has been removed.

Section 127. It is now a specified duty that any District Council shall supply the County Council with information required by the latter to carry out their duties.

137. Other new duties of the County Council include the collecting of Vital Statistics and the supervision of children under 7 received by persons for gain (Infant Life Protection). The Act also provides for a re-distribution of Maternity and Child Welfare work so that the most appropriate authority shall be responsible for the preparation and carrying out of a scheme. Generally speaking, it is thought advisable the same authority should look after both the Infant and the School Child.

Mental Deficiency Acts, 1913-1927.

138. As required, Medical Reports are submitted to the Clerk of the Peace who administers these Acts.

139. A Conference as to the provision of institutional accommodation for defectives was held at Worcester on 30th March 1928. Representatives of the County Councils of Gloucestershire, Shropshire, Staffordshire, Warwickshire, Worcestershire and the County Borough of Worcester attended. The Board of Control were represented by Dr. Rotherham and Mr. F. D. Caswell.

140. In the course of the discussion it appeared that most of the Authorities were opposed to the erection of a joint institution owing to the difficulties arising through joint authority and the question of accessibility. It appeared however that all were willing to contract for beds in any Institution which might be set up by another Authority.

141. The shortage of accommodation for defectives is apparent but the provision of fresh accommodation is not likely to be decided upon until it is seen how far the reshuffling of existing accommodation under the Local Government Act alters the local problem in Worcestershire.

Hop Pickers.

142. During the hop picking season of 1928 I personally visited many hopfields. A fairly complete statement of the condition which existed is included in my School Report for 1928.

143. Generally speaking, I am satisfied that the conditions in Worcestershire hopfields are steadily improving and although far from perfect I think the general arrangement and accommodation would not suffer by comparison with those prevailing in other hop growing Counties. In our own County more use is made of permanent buildings (barns, stables, etc.) than temporary wood and sheet iron sheds and barracks. The former system is frequently commented on unfavourably by the uninitiated, but, except for

the risk of fire, the accommodation is generally preferable at a time of the year when variability of climate (both temperature and rainfall) may be expected. Unless the huts are constructed on substantial lines and kept in a good state of repair, which is a costly proceeding for buildings only used for a few weeks in the year, I am of the opinion that the majority of pickers prefer the permanent outbuildings to the constructed barracks.

144. The activities of the Local Sanitary Officers in seeing that these barns and stables are properly prepared and white-washed before occupation by pickers, and the very generous allowance of straw provided by the farmers, has done much to add to the comfort of pickers in this County.

145. I have mentioned in a previous Report that all Worcestershire farms do not provide for the skilled supervision of their pickers by nurses. Minor ailments require attention by simple drugs and dressings and the regular visits of a nurse at stated hours to undertake such duties is very necessary. Hop pickers are drawn from very wide districts and are likely to convey infectious and contagious diseases.

146. Last year smallpox occurred in the Kentish fields and I think it was accepted that the Authority in which the Hop Yard was situated was responsible for the provision and cost of isolation accommodation for cases of infectious disease and not the Authority where the case normally was resident.

147. I consider a competent nurse should see every sick person and the services of such a nurse should be available daily on every farm employing any considerable number of pickers; in this way infectious cases can be detected early and widespread epidemics might be prevented. It would also be a wise precaution to ascertain whether any epidemic disease is prevalent in the district from which hop pickers are drawn. Smallpox may be mild in type and although not accounting for many deaths in its present form, any outbreak would be very costly.

148. There is a tendency for pickers to depart home when they are unwell. This may be a convenient way of getting rid of troublesome patients but where any suspicion of epidemic disease exists the Local Authority of the area should have full information. Diarrhoea may be prevalent, due perhaps to bad drinking water, or to eating unripe fruit. Whatever the supposed cause, the Local Medical Officer of Health should be kept informed, otherwise diseases of the Typhoid family will sooner or later be missed with a resultant spread of the disease and, possibly, loss of life.

149. The new Model Byelaws issued by the Ministry of Health should prove most useful. I am pleased it has been found possible to include one dealing with the risk from fire. It has for some considerable time been realised by the Tenbury Rural District Council that some added powers in this direction were necessary as previously the Byelaw which that Authority wished to adopt was not confirmed by the Ministry of Health.

Blind Persons Act, 1920.

150. No development has taken place during the year.

151. The County Scheme under this Act is mainly carried out by the Worcestershire Voluntary Association for the Blind and includes subsidies to the unemployable blind and supervision and instruction by two Home Teachers in the homes. One of the Home Teachers is provided with a motor vehicle. In addition annual contributions are paid to the National Library for the Blind and the Stourbridge Institution for the Blind.

152. Training of Blind Workers is by arrangement carried out at the Birmingham Royal Institution for the Blind and the subsequent "Home Worker" Supervision is arranged for through this organisation.

153. There are at present 13 Home Workers who are assisted by the County Council.

Smoke Abatement.

154. Conferences of the Local Authorities concerned have been held at Birmingham as to dealing with the emission of Black Smoke.

155. Enquiries are being made as to what action Local Sanitary Authorities in the County propose to take in reference to the Model Byelaw issued by the Ministry of Health.

156. The Midland Joint Council for Smoke Abatement have asked the constituent authorities to adopt a uniform byelaw to deal with the emission of black smoke but some delay in carrying out the recommendation has occurred.

157. Objections to the Byelaws raised by certain trades (brickworks etc.) are being considered and the form of byelaws adopted will largely depend on the result of this enquiry.

Isolation Hospital Accommodation.

A. *Smallpox.* B. "*Fever*" *Hospitals.*

A. *Smallpox Hospitals.*

158. Last year I recorded information as to arrangements existing in County Sanitary Districts for the isolation of cases of Smallpox and other Infectious Diseases, together with information as to the number of beds provided in the Hospitals situated in the County of Worcester.

159. The Smallpox Hospital now being erected at Tolladine near Worcester will provide accommodation for 13 Sanitary Districts in the County in addition to the City of Worcester and will be ready for occupation sometime this year. With the completion of this Hospital the County provision for Smallpox will be satisfactory.

B. "*Fever*" *Hospitals.*

160. During 1927-28 I made a survey of all the Worcestershire Isolation Hospitals. As an outcome of this report instructions were given by the Public Health Committee that a further report be presented indicating the lines upon which combination between certain Authorities responsible for the provision of Isolation Hospital accommodation is desirable. A report upon these lines was prepared and copies were forwarded to the various Hospitals concerned. Although certain improvements, such as the provision of a motor ambulance and repairs suggested in the report are contemplated, the bigger question of co-operation between Hospitals and amalgamation of districts was not favourably received.

161. Before the days of motor transport, many small but very useful Isolation Hospitals were provided and it reflects the greatest credit upon the sanitary administration of these Districts that such satisfactory small Hospitals were provided for relatively small districts. The general use of the telephone and improved motor ambulance facilities have very considerably altered the position, and the old standing arrangements of twenty years ago are not likely to produce the maximum of economy or efficiency to-day.

162. The arrangement in the North of the County where two Hospitals (established under the Isolation Hospitals Acts) serve a number of sanitary districts is satisfactory. These Hospitals are situated near Halesowen and Bromsgrove, the total population of the two hospital districts being rather more than 125,000. As these two hospitals are situated near good main roads and the distance between would only take about twenty minutes in an ambulance, the possibility of co-operation in emergency epidemics would be very valuable and easily carried out.

163. The Kidderminster Borough Hospital is to a small extent also used by the Borough of Bewdley, the Urban District of Stourport and the Kidderminster Rural District. No accommodation is owned by Martley, Tenbury or Rock Rural Districts and cases may occasionally be received from these areas. The pavilion accommodation at the Kidderminster Hospital is constructed on temporary lines and compares unfavourably with that in other Isolation Hospitals in the County.

164. In South Worcestershire there are Isolation Hospitals at Malvern, Upton, Pershore, Evesham and Shipston. In addition there is the larger Hospital provided by the City of Worcester which admits only occasional cases from the County.

165. At present, cases of infectious disease occurring only a stones throw outside the City boundary are conveyed in horse drawn vehicles to hospitals some miles away, where the cost of treatment is of necessity much higher whereas the patient would in many instances have preferred to receive treatment in the larger and more conveniently situated hospital.

166. When a number of small but reasonably satisfactory Hospitals have been provided the question of substitution of a central hospital system presents difficulty, but quite apart from any new buildings or extensive alterations, a revision of the use of existing Hospitals by increasing the size of the hospital district and providing for full co-operation in epidemic periods would in my opinion produce similar results to those claimed for the Central Hospital, namely economy in staff, transport and Hospital provision with increased efficiency.

167. The Table below gives details of the Malvern, Evesham, Upton-on-Severn and Pershore District Hospitals.

District and Population.		Beds provided.	Annual Average number of cases 1923-27.	Permanent Staff.		
				Nursing.	Domestic.	Outside.
Evesham Borough Evesham Rural Pebworth Rural	22000	25	15	3	1	1
Pershore Rural	13000	21	12	2	1	1½
Upton-on-Severn	13000	18	24	3	2	1½
Malvern	18000	26	57	4	4	1

168. Excluding loan charges, Pershore's average of 12 cases costs £709 per year; Upton-on-Severn's 24 cases cost £1,195; Malvern's 57, £1,789 and Evesham's 15, £888.

169. In Upton and Pershore practically every notified case is treated in Hospital. Many of these are cases of Scarlet Fever which would include the usual number of very slight cases.

170. As the Local Government Act, 1929, provides for the making of a Survey by the County Council of the accommodation for the treatment of infectious diseases and the subsequent preparation of a Scheme after consultation with the Districts in the County and the adjoining County Boroughs, if necessary, the whole question will have to be reconsidered.

Housing of the Working Classes.

171. During 1922-1927 inclusive, 2,809 houses have been erected by Local Authorities and 3,862 by private enterprise. The figures of County districts for 1928 are given in Table VI.

172. During 1928 a circular was addressed to local authorities asking for information as to how far it was possible, with existing officers, to undertake the duties imposed by the Housing (Inspection of Districts) Regulations.

173. The replies show considerable variation. In certain districts the work is up to date; on the other hand in one area the inspections recently recorded are so few that if carried on at the present rate the work would take 50 years or more to complete; the cause is insufficiency of staff. In several other districts the position is not satisfactory.

174. While the aim of most authorities should be to obtain up to date information each five years, ten years is practically a general period in which to complete surveys.

175. The attention of all Sanitary Authorities has been called to their obligations and each Authority has, further, been asked to supply at a later date information as to :—

- (1) The number of houses which have been condemned and are still occupied and
- (2) The number of houses which *ought* to be condemned and are still occupied.

District.	No. of Houses Erected. By Local Authority.	By Private Enterprise or Subsidy.	No. of Houses Unfit.	No. of Closing Orders made.	No of Closing Orders determined	Chief Sanitary Requirements.	Large Sanitary Improvements.	Notes as to Typhoid Cases.	Notes as to Infectious Diseases.
URBAN.									
Bewdley —	30	2	22	Nil.	Nil.	Nil.	Nil.	Nil.	Outbreak of Diphtheria. Report by M.O.H. Nil.
Bromsgrove —	8	12	3	3	3	Modernising of the Sewage Farm	Nil.	Nil.	
N. Bromsgrove —	Nil.	179	Nil.	Nil.	Nil.	Nil.	Rubery now sewered.	Nil.	
Droitwich —	Nil.	16	11	Nil.	Nil.	Conversion of pail closets and privies to water closets. Re-sewering of certain areas under consideration	Nil.	Enquiries made as to possible contamination of water and milk supplies but these gave no indication as to origin of disease.	Nil.
Evesham —	13	15	36	Nil.	Nil.	Clearance of certain defective poor class dwellings as soon as alternative accommodation is available.	Two new sewage distributors have been installed on secondary filter beds at the Sewage Disposal Works 620 notices have been served to provide proper sanitary dustbins in lieu of unsatisfactory refuse receptacles.	Nil.	Nil.
Halesowen —	18	90	7	7	Nil.	(1) Conversion of privies to water closets (2) Provision of water supply to dwelling houses (3) Provision of adequate ventilation to houses by alteration of fixed windows (4) Provision of eaves gutters and downspouts for the prevention of dampness (5) Provision of sufficient and suitable drainage to houses.	Nil.	Nil	Nil.
Kidderminster —	14	70	Nil.	Nil.	Nil.	Nil.	Sewers extended in new areas.	Origin of case unknown.	91 Cases of Scarlet Fever during year. Diphtheria. From enquiries cases due to want of better houses and unrecognised carriers.
Lye and Wollescote —	52	10	2	2	2	Need for more new houses. There are houses which should be closed if there were new houses for people to go into.	Towards the end of the year an Order was made by the County Council for the Lye and Wollescote District Council to take over on the 1st day of April, 1929, 241 acres from the adjoining district of Pedmore, which should help to bring about some Sanitary improvement.	Case lived in back to back house. Pigs kept close to house.	
Malvern —	Nil.	27	2	2	1	Very cheap houses for those who have not the means to secure a suitable dwelling.	Nil.	2 cases—source of infection unknown.	
Oldbury —	198	87	9	10	Nil.	A further 1,000 houses for the working classes—750 to meet the demand of sub-tenants and 250 to replace unhealthy and unfit houses. Black smoke prevention from Factories. Separate W.C. and wash house accommodation for many blocks of houses.	292 fixed ashpits abolished, and 643 portable standard dustbins substituted. Hagley Road West and Birchfield Lane Sewerage Schemes completed thereby providing for the drainage of 130 houses leaving only 60 unsewered houses in the district. Rounds Fold Reconstruction Scheme 1928 virtually completed—providing for demolition of 19 old and unfit houses and the erection of 22 new ones.	—	Severe epidemic of Whooping Cough. August and September.
Redditch —	4	61	3	1	Nil.	Nil.	Two blocks of property consisting of 8 houses were reconstructed and reconditioned. Many other houses were extensively repaired. Four sculleries with inside W.C's. were provided in place of one washhouse and two W.C's. used in common.	3 cases. Origin not discovered.	Diphtheria 58 cases notified during the year, 5 proved fatal.
Stourbridge —	Nil.	55	2	2	5				
Stourport —	24	9	7	7	7				
RURAL.									
Bromsgrove —	42	129	7	7	5	Extension of the sewer and improvement of the disposal work for Stoke Prior Parish. Extension of sewer in Alvechurch Parish. Provision of sewers and sewage disposal works to serve built up area in the Parishes of Wythall and Belbroughton. Extension of the water mains in Wythall Parish.	Extension of sewers have been carried out in the Parishes of Hagley, Clent, Romsley, Stoke Prior. Voluntary system of scavenging has been put into force in the Parishes of Alvechurch, Stoke Prior, and Wythall. Water mains laid by the Council from the S. Staffs main at Romsley Hill to serve Bell Heath (Boys Camp &c.) Birmingham Water Depot have laid a main in Maypole Lane Wythall and connections have been made to 48 houses.	—	—
Droitwich —	—	34	—	—	—	—	—	—	—
Evesham —	16	29	3	2	3	Sewerage and Sewage Disposal Schemes for Cleeve Prior and Bretforton. The water supply needs improving at Hampton, Offenham, Harvington, Sedgeberrow and Norton. A Scheme is now before the Ministry of Health in respect of the Water Supply.	Extension of main sewer Cheltenham Road, Hampton. Extension of water mains at Broadway.	—	—
Feckenham —	Nil.	3	Nil.	Nil.	Nil.	Sewerage System for Crabbs Cross and Hunt End. Conversion of Pail Closets to Water Closets where adjacent to sewers in Astwood Bank and Feckenham.	Nil.	—	—
Kidderminster —	22	18	Nil.	Nil.	Nil.	Sewerage Scheme and works for Wribbenhall. Sewerage Scheme for Chaddesley Village. Water supply for part of Dowles and Shatterford Districts.	—	—	—
Martley —	—	23	11	11	2	—	Small sewer laid at Great Witley with a “ Tuke & Bells ” outfall works.	—	—
Newent —	Nil.	1	Nil.	Nil.	Nil.	Supply of water and sewerage Scheme at Redmarley Village. Provision of houses which could be let at a low rental to the labouring classes.	Steady improvement in the construction and drainage of Cowsheds and Dairies is maintained while the standard of cleanliness in the production and distribution of milk is distinctly higher than prior to the passing of the Dairies Order of 1926.	—	—
Pershore —	60	27	—	—	—	Water supply, sewerage and sewage disposal works for Pershore.	—	—	—
Rock —	Nil.	4	1	—	—	—	—	—	—
Shipston-on-Stour —	Nil.	10	—	—	—	—	The property owners are reconstructing their drainage and sanitary arrangements and connecting to the new town sewerage system. A system of systematic scavenging has been inaugurated in the Parish of Blockley.	—	—
Stow-on-Wold —	—	—	—	—	—	—	—	—	—
Tenbury —	—	5	1	1	—	—	—	—	—
Tewkesbury —	—	—	1	1	—	The hamlet of Kinsham is badly in need of a piped water supply and Bredon Village supply is quite inadequate during the dry seasons.	—	—	—
Upton-on-Severn —	Nil.	12	1	1	1	Water supplies, Sewerage and Sewage Disposal for small communities.	Extension of Sewers and water mains.	Two cases removed to Worcester Infirmary. One case presumed to be a carrier had assisted in preparing food at a Public House where catering for parties visiting Upton was done.	—
Winchcombe —	—	—	—	—	—	—	—	—	—

* Compiled from information supplied by Local Sanitary Officers.

176. While I do not suggest that Authorities should be worried for mere statistical information, I do feel that if a practical solution of housing difficulties is to be found, a preliminary step should be for the responsible local authorities to have such information before them as will indicate the extent of the problem. This may seem such an obvious recommendation that it might at first sight appear to be unnecessary, but when a return of condemned houses which were still occupied was asked for on a previous occasion, the replies received gave no information from which one could form any idea of the actual problem ; for example two of the most active authorities (one Urban and one Rural) supplied figures which disclosed the fact that a large number of condemned houses were still occupied. In other districts where housing conditions were known to be extremely unsatisfactory, a Nil return was supplied or a statement furnished that only one or two condemned houses were occupied. When further information was asked for, it became apparent that houses were not condemned because no alternate accommodation was available. In one area I visited during the year I saw many houses which were not only unfit for habitation but were in such a state of disrepair that they were positively unsafe. Houses were occupied until they collapsed and necessary routine repair work was at a standstill.

177. Information as to the number of houses which *ought* to be condemned will vary according to the local standard adopted and although the information will not be strictly comparable it should provide the Public Health and Housing Committee and the local authorities with more reliable data as to Housing conditions than previously.

178. It is not proposed to ask for this information immediately but to wait until further progress under the Inspection of District Regulations has been made.

Slum Areas.

Oldbury Urban District.

179. The Rounds Fold Reconstruction Scheme, 1928, providing for the demolition of 19 old and unfit houses and the erection of 22 new ones is almost completed.

Stourbridge Borough.

180. Two blocks of property consisting of 8 houses were reconstructed and reconditioned ; while many other houses were extensively repaired.

181. The above, though a small Scheme, illustrates one of the problems of Sanitary Authorities. There are in every town workers whose wages are such that they cannot afford Council houses ; they occupy houses which may be well built but are deficient in sanitary conveniences. These houses will continue to be used for many years to come and to get improvements carried out is at present very difficult. In the above case not only were the houses reconditioned, but sculleries and inside W.C's. were provided in place of a common wash house and two W.C's. used in common.

182. It is hoped that further blocks may be dealt with in this way. The difficulty encountered in getting such improvements carried out is that the landlord does not as a rule get a fair return on his expenditure and unless he gets assistance from local sanitary officers in the way of preparation of plans etc. is loath to take the initiative in exploring such possibilities.

Housing (Rural Workers) Act, 1926.

183. This Act (the provisions of which have been fully explained in former Reports) has now been in operation for a sufficient length of time to enable its advantages to become well known. It is to be regretted that more use has not been made of the opportunities it provides.

184. Although the utmost possible assistance is and will be given by the Public Health Department, the preliminary steps must—as has been pointed out previously—come from the districts. I am grateful to the Sanitary Officers who have co-operated in trying to make the Act useful, and I hope that they will not relax their efforts, for unless more use can be made of the Act (which is a temporary statute, and expires on the 30th September 1931) the period of its operation is not likely to be extended.

185. Doubts were originally expressed that the complicated nature of the Act would make it impracticable to put it into effect, but the experience gained in this County has shown this fear to be groundless, for with the close co-operation which exists between the County Council and the Local Sanitary Authorities (and the Officers of the latter), the Council's Scheme has worked very smoothly and, I think, efficiently.

186. It is not generally understood that the provisions of the Act apply to dwellings in urban parts of the County, equally with those in the rural districts, provided the essential condition, that the dwellings are to be occupied by tenants of a similar economic position to that of an agricultural worker, is observed. This provision, of necessity, very materially influences the use that can be made of the Act in manufacturing districts.

187. The variation between the respective numbers of applications from the individual districts in the County is as marked as it was last year. It is disappointing to find that there are rural areas where no use has been made of the Act, although from the information available as to the housing conditions of these districts, it is evident that such assistance as is provided in the Act ought to be extremely valuable. The Act may be made particularly useful as a means by which Local Sanitary Authorities can induce owners to put their properties into thorough order and repair. Without the Act, such action in view of the depressed condition of agriculture might be very difficult.

188. Apart from the actual applications which have been approved, the Act may be said to have served a useful purpose as it has caused some owners to make enquiries as to the condition of their properties with a view to obtaining a grant. Although eventually they have found it would be more advantageous to undertake the work without assistance, it is probable that without the incentive provided by the Act, the improvement in these dwellings would not have been effected.

189. It has always been felt that the Act could be of decided advantage to farmers with tied cottages for their own workers and experience has proved this view to be correct.

190. It is curious that no use has been made of the Act in this County for providing dwellings with improved water supplies. Where rural hamlets could be supplied with water by the extension of water mains or by the provision of a communal pump, the Act ought to be of assistance in solving one of the chief rural problems.

191. Since the Council's scheme came into force, in three instances buildings not previously used for human habitation have been converted into dwellings. There must be many buildings in the County at present unused which could be converted into suitable cottages. The suggestion is a practicable one, as has been proved by the cases already dealt with under the Act.

192. The grants approved from September 1927, when the Council's scheme came into operation, to the 31st December 1927, totalled £845 10s. 0d., and were in respect of nine dwellings. The total estimated cost of the works in these cases was £1,450 16s. 0d.

193. During the year 1928, the total grants approved by the Committee amounted to £5,786 0s. 6d. and represented sixty-six dwellings. The estimated cost of the works carried out upon these cottages was £10,312 15s. 7d. One loan of £135 was made

on the security of a dwelling which was thoroughly repaired under the Act, and in respect of which a grant of £100 was also made to the owner (who was also the occupier).

194. The grants approved from the beginning of 1929 to the date at which this is written amount to £2,124 4s. 6d. and relate to twenty-two cottages. In addition two loans (totalling £232 14s. 0d.) have been made; in both these cases, grants of £100 were also approved.

195. Applications in respect of twelve cottages are, at the time of writing, under consideration.

196. In accordance with the Council's decision, full details of the grants approved, with the names of the persons to whom they are made, are included in the periodical reports to the County Council.

197. It will be seen that in certain instances loans, as well as grants, have been made. The loans are repayable by instalments of principal and interest at the rate of $5\frac{1}{4}$ per cent over a period of twenty years. This provision should be of great assistance to owner occupiers who have little or no capital to meet their share of the cost of the contemplated improvements.

198. In view of the substantial improvements which have been effected to properties dealt with under the Act, the owners attention has been called to the advisability of insuring the dwellings against fire, if this has not already been done.

199. As the restrictions upon rental and tenancy which are imposed when a grant is made remain in force for a period of twenty years, periodical enquiries are made as to the observance of these conditions.

200. Certain applications submitted during the past year have had to be rejected for one or other of the following reasons, viz. :—

Economic position of tenant not similar to that of an agricultural worker.

Proposed work not within the scope of the Council's scheme.

Work carried out prior to application being made.

Unsuitability of dwellings for human habitation after completion of proposed work.

201. The services of the County Land Agent have been enlisted on several occasions. The difficulty of obtaining competitive tenders in some country districts is considerable. The original specification is generally prepared by the first builder and it can hardly be forwarded to a competitor.

202. In all cases where only one estimate is available the opinion of the County Land Agent as well as the certificate of the Officer of the Local Sanitary Authority is available for the Housing (Rural Workers) Act Committee.

Milk and Dairies (Consolidation) Act 1915.

Milk and Dairies Order, 1926.

203. No routine inspection of dairy herds is carried out in this County.

204. A certain number of samples of milk is examined each year for the presence of living Tubercle Bacilli.

205. The accommodation for guinea pigs which are used in these tests, has recently been increased, so that it will be possible for more samples from our own County to be dealt with in future.

206. When milk produced in this County, but retailed outside, is found to contain Tubercle Bacilli, action is taken at once to discover and remove the affected cow.

207. Eight cases reported by the Medical Officer of Health of Birmingham were investigated. In one case, it was not found possible to detect the affected cow which, quite possibly, was no longer in the herd. In six cases, 7 cows found to be giving milk containing living Tubercle Bacilli were slaughtered, the diagnosis being confirmed at the post mortem examination. In the remaining instance, a cow exhibiting definite clinical signs was slaughtered. The diagnosis was confirmed by a post mortem examination, although the biological test was negative. Probably the excretion of Tubercle Bacilli in this case was intermittent. In one case, following a report from the London County Council, a cow was discovered with a suppurating udder. This animal was withdrawn from the herd and fattened for slaughter. Five other investigations were carried out arising upon reports received from Worcester City, Staffordshire County Council and Dr. H. Gordon Smith (the Chief Tuberculosis Officer).

208. Where Tuberculosis occurs in infants and no history of contact with a human case can be discovered, the milk supply is investigated. In April 1928, a baby (aged 4) developed Tuberculosis and died in June. The family was a large and healthy one. Subsequently the following members of the family were notified as suffering from Tuberculosis of Glands :—

In January 1929	—	—	a girl aged 11.
In February 1929	—	—	a girl aged 9.
In April 1929	—	—	a boy aged 7.

209. These were all very marked cases ; the children looked fit and well, but had huge enlargement of the cervical glands.

210. The milk supply of the family was drawn from four farms. The milk from one farm and also the mixed milk from three other farms was found to contain Tubercle Bacilli. Investigations to try and detect the individual cows are continuing.

Fees to Veterinary Inspectors.

211. As it was found that the duties under the Milk and Dairies Order, 1926, and the Tuberculosis Order, 1925, differed materially, it was decided that the scale of fees paid for work under the former Order should be amended as follows :—

Clinical examination—

10s. 6d. for first cow with 1s. 0d. for every subsequent cow up to a maximum of £3 3s. 0d. per day.

Travelling allowance—

6d. per mile each way.

Routine Inspection of Cattle.

212. Arrangements were made by the Gloucestershire County Council for two general inspections of the dairy cattle in that County. They were prepared to pay for similar inspections arranged by the Worcestershire County Council in the parishes transferred from Gloucestershire to Worcestershire under the Diseases of Animals Act and would also undertake the work in the six parishes transferred from Worcestershire to Gloucestershire.

213. No action was, however, taken in view of the decision of the County Council not to undertake the routine examination of dairy cattle.

Fee for Analysis.

214. A fee of 10s. 6d. ordinarily is charged for the bacteriological examination of a sample of milk.

215. The Public Health and Housing Committee decided that a certain number of examinations should be made for Local Sanitary Authorities at a reduced fee of 5s. 0d., in order that the active Authorities should be encouraged and others might follow their example.

216. At present, certain Authorities in this County send in no samples at all, while others take an active interest in this branch of the work. It has been found that the quality of the milk generally has improved where samples have been taken and examinations of this type have been made.

217. This bacteriological examination of milk gives the Local Sanitary Authority information as to the number of organisms in the milk, which is the chief guide as to whether the milk is clean and wholesome.

218. Graded milks have to conform to certain standards laid down by the Milk (Special Designations) Order 1923 ; what can be done by ordinary producers, with good methods, to reach a reasonable standard is demonstrated by the Clean Milk Competitions.

219. In some Counties arrangements for the systematic sampling of all milk in the area is undertaken by inspectors appointed by the County Council. This has obvious advantages, for overlapping is avoided and a general standard of inspection is adopted for the whole County.

Clean Milk Courses.

220. In 1927 a " Clean Milk Course " and demonstrations in the production of clean milk were arranged for the benefit of County Sanitary Inspectors. This year a further advanced course is in progress. This was arranged at the request of the Officers of certain districts, and it was noticeable that nearly all the Worcestershire Authorities agreed to allow and pay for the attendance of their Officers at this Course.

Clean Milk Competitions.

221. The Agricultural Education Sub-Committee have arranged such competitions in this County. The results of these activities should be far reaching.

222. If Local Sanitary Authorities and their Officers can stimulate interest in these competitions I am sure it will be of advantage both to the farming community and the general public. Whilst buildings and dairies are important, method in handling is essential for the production of clean Milk.

Co-Operation with Agricultural Education Sub-Committee.

223. In cases where complaints are received as to the unsatisfactory nature of the milk produced in the County, and information is obtained pointing to faulty methods of production rather than the condition of the cattle being causal, arrangements have been made with the Agricultural Education Sub-Committee for a demonstration or some instruction in clean milk production, provided the farmer is willing to accept the facility offered.

Milk (Special Designations) Order, 1923.

Grade A Milk Licences.

224. Two new applicants were granted licences, and three other licences were renewed in 1928.

225. It was necessary temporarily to withdraw one licence at the beginning of this year, as the general conditions on the farm were not satisfactory and several samples of milk did not reach the required standard.

Rural Water Supplies.

226. The report of the Advisory Committee on rural water supplies was issued early in 1929, and the general conclusions and summary of recommendations are given below :—

- (1) The repeal of the rigid statutory limitation on borrowing powers.
- (2) If parochial rating for water deficiencies be retained :—
 - (a) in the case of schemes for more than one parish, the option of charging the cost of the water supplies either parochially as at present or upon the parishes served, as if they were a single water area (paragraph 19 (1)).
 - (b) New powers authorising contributions from the Rural District as a whole (paragraph 19 (2)).

- (3) Fuller powers to ensure fair charges upon the consumers (paragraphs 20, 22 and 31).
- (4) Increased powers enabling District Councils to require statutory water undertakers to extend their mains where the Council guarantee the statutory revenue upon the capital outlay and additional powers for enabling District Councils to obtain bulk supplies (paragraphs 23 to 25).
- (5) New powers enabling the Minister to remove unsupplied parishes from the statutory limits of undertakers and to include them in the statutory limits of other undertakers (paragraph 28).
- (6) The encouragement of the provision of good public wells where piped supplies are impracticable (paragraph 30).
- (7) Additional powers to secure to the Local Authorities control by byelaws over the construction, etc., of private wells (paragraph 33) and to safeguard such wells against contamination (paragraph 34).
- (8) New powers to require owners to improve defective wells (paragraph 35).
- (9) Additional powers to make byelaws to safeguard the use of rain water (paragraph 43).

For convenience the following suggestions referred to in the Memorandum of the Ministry of Health of April, 1924, are also incorporated.

- (10) Local Authorities to have power compulsorily to acquire water rights.
- (11) The penalties on the occupation of a house without a proper supply of water to be made more severe.
- (12) The financial limits within which an owner can be required to provide a water supply to be raised to a higher figure—vide Public Health (Water) Act, 1878, Section 3.
- (13) The direct supply by a Local Authority to a house outside their district to be permitted.
- (14) A local Authority to be empowered to purchase a water undertaking, even if part of the area of supply is outside their district.

Rivers Pollution Prevention.

River Severn.

227. Surveys of the River Severn have been carried out, in conjunction with other Local Authorities and the Ministry of Agriculture and Fisheries, on several occasions during the last few years. Generally speaking, apart from the River Stour and the pollution at Wribbenhall and Bewdley, the position is reasonably satisfactory. At a survey made by the County Analyst on the 7th September 1928 considerable improvement in the river, particularly below Worcester, was noticed. This was due to the sewage of the City of Worcester being completely and efficiently treated.

228. Investigations into the variations of the dissolved oxygen figure, with particular reference to the phenomenon of supersaturation, in the River Severn have been carried out by the County Analyst during the last three years, but are not yet completed. It is obvious that climatic conditions and daily variations influence the figures considerably and some knowledge of the normal variations in winter and summer, and also of wet, cold and dull summers, as opposed to dry, warm and bright summers should be of great interest and use.

Laugherne Brook (Martley Rural District).

229. This brook is at times seriously polluted by refuse from a sausage skin factory and will form the subject of a report during the summer of 1929.

River Stour.

230. This tributary of the Severn forms, between Halesowen and Stourbridge, a boundary between the Counties of Worcestershire and Staffordshire. Subsequently it runs in a loop through Staffordshire and re-enters Worcestershire above Kidderminster, finally entering the River Severn at Stourport.

231. In the upper stretches, the river is polluted on the Worcestershire side by very considerable trade effluents, mainly acid waste, in the Halesowen Urban District. In the past, sewage pollution from the Staffordshire side was marked, as the sewers of the Upper Stour Drainage Board (which covers Worcestershire and Staffordshire districts) were not adequate to deal with the sewage of the area. A scheme has been approved by the Ministry of Health to remedy this defect.

232. After passing through Stourbridge, the River Stour leaves Worcestershire and has improved very considerably by the time it re-enters this County, but the appearance of the River deteriorates again from Kidderminster to Stourport.

233. A Joint Committee has been formed by the Authorities in the Stour Watershed, and a comprehensive survey of the River is being undertaken as a preliminary step. The Worcestershire and Staffordshire County Councils have made grants towards the initial expenses of the Joint Committee.

234. A Survey of the River Stour was made by the County Analyst and me on the 13th June 1928, and a further survey will be carried out this year.

235. Considerable alterations have been made in the method of treatment of the Beet Sugar effluent at the Kidderminster Factory. The results were not wholly satisfactory when the factory was visited this year, but the new plant had only just been installed.

236. It is proposed to visit this factory again, so that the efficiency of the new system may be investigated under more normal conditions.

River Avon.

237. There is no serious pollution of the Avon in Worcestershire.

River Arrow.

238. The River Arrow appears to be in good condition. The effluent from the Redditch sewage works was found, on examination, to be reasonably good.

River Tame.

239. Pollution of the River Tame arises from the sewage works of the Oldbury Urban District Council. The increase in population and improved local sanitary conditions have resulted in the existing works being inadequate to deal with the sewage of the district. A considerable portion of the sewage enters the Tame after incomplete treatment.

240. A proposal has been made for the provision of a trunk sewer to deal with the watershed of the River Tame (which includes the Oldbury Urban District). A Scheme prepared by the Birmingham City Engineer has been discussed and a further Meeting of interested Authorities as to this Scheme will take place.

241. It is to be hoped that these proposals will be possible. The main difficulty is the very heavy expense which would fall upon districts, such as Oldbury, at the end of the proposed trunk sewer.

242. The only present alternative is to enlarge the existing works, but the objection to this is that the site is far from an ideal one, being situated in a congested and built up district.

Drainage, Sewerage, Water Supplies and Scavenging.

Salwarpe Valley Drainage Scheme.

243. Part of the areas of four Local Authorities (Bromsgrove and North Bromsgrove Urban Districts and Bromsgrove and Droitwich Rural Districts), in the collecting area of the Upper Salwarpe, are in need of alterations to disposal works, or require extension or fresh provision of sewers.

244. A Conference is being held to discuss the possibility and desirability of joint action. The avoidance of a number of separate disposal works in an area which is developing is of importance. To provide separate drainage and outfall works limited by the boundaries of existing Sanitary districts is not likely to form the best solution in the long run, and it is hoped that a joint scheme may be decided upon.

Wribbenhall. (Kidderminster Rural District).

245. The drainage of this locality is extremely bad, and, as the matter has been under consideration for 34 years, the County Council have decided to take drastic action unless the Local Sanitary Authority produce a scheme within a reasonable limit of time.

246. Not only is the River Severn receiving a large portion of the sewage of Wribbenhall without any treatment, but the nuisance arising from the large number of dumbwells (over 100) which are situated in small gardens or in close proximity to main roads, makes action imperative.

Bewdley Borough.

247. The drainage arrangements in this ancient Borough are very unsatisfactory. There is unfortunately considerable difficulty, both financial and geographical, in carrying out the necessary improvements. In the past it was financially impossible for Bewdley to undertake such a scheme, and without assistance from the County Council, or an alteration of boundaries to include Bewdley in a bigger area, I am afraid that no action can be taken.

Bungalow Town, Stourport.

248. There are a number of wooden and other erections situated in a low lying part of Stourport which is from time to time subject to flooding. The Medical Officer of Health (Dr. E. Stanley Robinson) has frequently referred to the unsatisfactory conditions existing in this district. The buildings have no drainage, and water is obtained from shallow wells. Many of the dwellings are in a bad condition and are devoid of all ordinary conveniences.

249. The area was originally in the Droitwich Rural District. Most of the "shanties" were erected without reference to the Local Sanitary Authority, no plans were submitted or approved, but they have been occupied for a number of years. The Local Sanitary Authority has condemned several of the worst of these dwellings, but as a very considerable number of persons occupy houses in this area, and no alternative accommodation is available, action can only be taken by degrees.

250. This site might have been useful as an open space or a factory site, but ought not to have been used for a housing site. It presents a good object lesson on the need for the adoption of Town Planning Schemes by Local Authorities.

251. I hope the Local Sanitary Authority will continue to demolish these unsatisfactory dwellings and prevent the erection of further buildings intended for human habitation unless better water and drainage facilities can be provided.

Sanitary Improvements during 1928.

North Bromsgrove Urban District.

252. Rubery has now been sewered.

Evesham Borough.

253. Two new sewage distributors have been installed on the secondary filter beds at the Sewage Disposal Works.

Kidderminster Borough.

254. Sewers have been extended into new areas.

Oldbury Urban District.

255. Hagley Road West and Birchfield Lane Sewerage Schemes have been completed, providing for the drainage of 130 houses.

Bromsgrove Rural District.

256. Extension of sewers have been carried out in the parishes of Hagley, Clent, Romsley and Stoke Prior.

Evesham Rural District.

257. Extension of the main sewer along Cheltenham Road, Hampton.

Martley Rural District.

258. A small sewer has been laid at Great Witley, with a Tuke and Bells outfall works.

Upton-on-Severn Rural District.

259. Extension of sewers.

*Water Supplies.**Pershore Rural District.*

260. In the absence of a proper water supply difficulties must continue to exist.

261. At present efforts to acquire a water supply from certain springs are being pursued by the Pershore Authority. If it is not possible to obtain water from these sources a supply could, I think, be obtained from the City of Worcester. With their added powers under the Local Government Act 1929, it ought to be possible for the Pershore Rural District Council or the County Council to come to an arrangement for a supply from this source.

Areley Kings (Martley Rural District).

262. Most of the wells in this locality are unsuitable for drinking purposes, but the District Council have postponed action in the hope that the County Council under the Local Government Act 1929 may be able to contribute towards the cost of providing a better supply.

Chaddesley Corbett (Kidderminster Rural District).

263. Some improvement in the state of the water is reported as a result of action taken by the Rural District Council in providing for the scavenging of the village.

264. In the absence of a proper drainage system, it is unlikely that the wells will provide a satisfactory supply, as far as quality is concerned.

Bromsgrove Rural District.

265. Water mains have been laid by the Council, from the South Staffordshire Waterworks Company's main at Romsley Hill, to serve Bell Heath.

266. The Birmingham Water Department have laid a main in Maypole Lane, Wythall and connections have been made to 48 houses.

Evesham Rural District.

267. Extension of water mains have been made at Broadway.

Upton Rural District.

268. Water mains have been extended.

Scavenging.

Oldbury Urban District.

269. 292 fixed ashbins have been abolished and 643 portable standard dustbins substituted.

Shipston-on-Stour Rural District.

270. A systematic scavenging scheme has been inaugurated in the Parish of Blockley.

Evesham Borough.

271. 620 notices have been served to provide proper sanitary dustbins in lieu of unsatisfactory refuse receptacles.

Halesowen Urban District.

272. Following upon instructions received from the Public Health and Housing Committee, I spent several days in the area of this Authority.

273. The very unsatisfactory conditions found to exist were largely due to lack of sanitary supervision and inadequacy of staff. The deficiency of staff I am glad to say has since been remedied, and should form the first step to generally improved conditions.

274. The overcrowding and the unsatisfactory housing conditions in this district are acute, and the provision of additional houses is, in my opinion, more necessary in Halesowen than in any other district in Worcestershire.

275. More active steps in the conversion of privies to water closets have, I see from the Report of the Medical Officer of Health, already been taken. At the end of 1928 almost one thousand still remain to be dealt with.

276. Dr. T. Brett Young, the Medical Officer of Health, under the heading Drainage and Sewerage, in his Annual Report for 1928 states "an application has been made to the Ministry of Health for a system of sewerage for Lapal and Illey and an outlying part of Hill and Cakemore."

277. I confidently hope that with the increased sanitary staff, the privy conversions policy will be actively pursued and that more efficient drainage arrangements, more adequate ventilation and convenient water supplies, as well as improvement in general repair of the houses, will result. There is much need for these improvements.

Sale of Food and Drugs.

278. The interesting report published separately by the County Analyst shows the administration of these Acts in the County.

Treatment of Cripples.

279. A record showing the complete County Scheme for the treatment of Cripples was given in my last report and if reference thereto is desired it will be found on pages 45 to 49.

280. The work continues and has been extended by the provision of a Massage Clinic at Stourbridge; this will avoid the necessity for patients travelling to Birmingham.

281. The following is a Summary of cases treated during the year, viz. :

In-patients.

Birmingham Royal Cripples Hospital	—	53 cases.
Warwickshire Orthopaedic Hospital	—	4 „
Worcester Infirmary — —	—	25 „
Shropshire Orthopaedic Hospital	—	7 „
Kidderminster General Hospital	—	10 „
Birmingham Queens Hospital —	—	7 „
Wingfield Orthopaedic Hospital	—	1 case

Out-patients.

Stourbridge Clinic	221 cases	1181 attendances
Redditch Clinic	95 „	530 „
Worcester Clinic	111 „	343 „

Education in Health.

282. The issue of the periodical called "Better Health" has been continued, and is, I believe, appreciated by the Teachers and others interested in Health work who receive it.

283. Lectures are given to Mothers at Infant Welfare Centres. Two Lectures have been given to Midwives and District Nurses at Worcester. The attendances were excellent, nurses being present from all over the County.

284. A Lecture, attended by 400 people, was given at Kidderminster in March 1929 on the "Prevention of Tuberculosis."

285. "Maternal mortality" was the subject chosen by the Worcestershire Federation of Womens Institutes for their Annual Meeting, when I was asked to address the delegates.

286. The County Health Visitors continue to give lectures to the local branches of the Womens Institutes in the County on Maternity and Child Welfare and other Health subjects.

287. "Baby Weeks" and "Mother Craft" competitions have done something towards the education of Mothers in Health matters.

288. Lectures to school girls on "Mothercraft" have been undertaken in several County districts by the Health Visitors. A series of lectures was given by Miss Butler on Maternity and Child Welfare to a Worcester V.A.D. class. This course was followed by an examination of the students, who appeared to have derived benefit from the lectures.

289. The Worcestershire Insurance Committee and the Womens Institutes have held several meetings in the County on Rheumatism. Dr. Malcolm Campbell was the Lecturer and some very large audiences resulted.

290. I wish to thank all the Members of the County Medical Nursing and Clerical Staff for their very willing co-operation in the ever increasing amount of work which has to be undertaken in the Public Health Department.

Your obedient Servant,

WYNDHAM PARKER, M.C.,

M.B., Ch.B. (Edin.) D.P.H. (Lond.)

County Medical Officer.

Public Health Department,
29, Foregate Street,
Worcester.

July 1929.

APPENDIX.

WORCESTERSHIRE COUNTY COUNCIL.

REPORT OF CHIEF TUBERCULOSIS OFFICER FOR THE YEAR 1928.

Staff.

1. No change of Staff or areas was made in 1928, with the exception of the transference of part of Warley to Smethwick in April 1928. Worcestershire thereby lost about 10,000 of its population and the Dispensary at Warley Abbey was closed.

Notifications.

2. The 1928 notifications are set out in Age Groups (Table I.) and in Districts (Table II).

3. It will be noticed that the number of notifications has increased from 430 in 1927 to 501 in 1928. The increase is mainly in the non-pulmonary cases. The only explanation for this is that the Cripples Scheme is now in full working order and more cases are being brought to our notice. I do not think the increase in notifications means an increase in incidence of the disease.

TABLE I.
Notifications of Tuberculosis during 1928 showing Age Periods.

Age periods :	under 1 yr.	1-4 (4 yrs.)	5-9 (5 yrs.)	10-14 (5 yrs.)	15-19 (5 yrs.)	20-24 (5 yrs.)	25-34 (10 yrs.)	35-44 (10 yrs.)	45-54 (10 yrs.)	55-64 (10 yrs.)	65 and up- wards	Total.
Pulmonary—												
Males	—	1	8	7	17	25	46	24	28	9	4	169
Females	—	2	11	9	20	26	38	23	11	9	3	153
Non-pulmonary—												
Males	—	14	17	15	9	12	8	4	3	2	1	89
Females	—	9	27	10	13	14	8	2	3	—	—	90
Total	—	26	63	41	59	77	100	53	45	20	8	501

TABLE II.

Notifications of all cases of Tuberculosis shown in Sanitary Areas.

District.	Total cases notified 1928.	Population. 1928.	Notification Rate per 1,000 of Population.										Death rates.		
			1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1926	1927	1928
Bewdley Borough	8	2610	1.8	4.4	—	0.7	1.1	0.8	3.1	3.9	2.3	3.0	1.2	0.8	1.1
Bromsgrove Urban	15	9712	1.5	1.9	0.6	0.8	1.5	1.1	1.2	0.5	1.2	1.5	0.4	0.6	0.7
North Urban	13	9714	1.4	1.9	0.5	1.5	0.7	0.8	1.0	0.7	1.2	1.3	0.7	0.5	0.7
Droitwich Borough	7	3962	1.5	2.8	1.5	1.0	1.5	1.5	1.3	1.0	1.0	1.8	0.5	1.0	1.5
Evesham Borough	24	8562	3.7	2.6	3.0	1.8	2.3	1.6	1.0	1.6	2.5	2.8	0.8	1.0	1.2
Halesowen Urban	34	29410	1.8	1.8	1.5	1.0	1.0	1.2	0.9	1.6	1.0	1.1	0.6	1.2	0.7
Kidderminster Borough	75	27570	2.2	2.1	1.6	1.2	2.1	2.6	1.2	2.2	2.3	2.7	1.1	0.8	1.1
Lye and Wollescote Urban	21	12070	2.6	1.4	1.7	1.6	1.3	1.6	1.4	2.2	1.7	1.8	1.1	1.5	1.2
Malvern Urban	7	18050	3.0	2.8	1.0	0.4	1.3	1.3	0.8	1.1	0.6	0.4	0.5	0.7	0.5
Oldbury Urban	71	36560	2.1	1.9	1.6	1.9	1.8	1.6	1.2	1.1	1.5	1.9	0.8	0.7	1.0
Redditch Urban	27	16420	2.5	2.0	2.6	2.0	1.5	1.4	1.4	1.3	1.7	1.6	0.4	1.1	0.8
Stourbridge Borough	26	18940	3.0	2.3	1.6	1.5	1.8	0.8	1.4	1.3	1.1	1.4	0.7	0.7	0.9
Stourport Urban	6	5170	2.3	1.6	1.5	1.2	1.6	1.8	1.2	1.6	1.8	1.1	1.0	1.0	0.8
Bromsgrove Rural	19	19600	0.8	0.2	0.7	0.4	0.7	0.7	1.1	0.8	1.0	1.0	0.6	0.8	0.6
Droitwich Rural	23	12220	0.8	1.1	1.3	0.6	1.1	1.3	1.6	0.6	0.8	1.9	0.5	1.1	0.6
Evesham Rural	24	11100	2.2	2.1	1.9	1.0	1.3	1.7	1.6	1.3	0.9	2.1	0.6	0.8	0.8
Feckenham Rural	9	5377	1.7	2.8	3.3	1.5	1.1	0.9	0.5	0.7	0.7	1.7	0.2	0.2	1.3
Kidderminster Rural	14	7676	0.4	0.4	0.4	1.5	1.4	1.3	0.9	2.6	1.3	1.8	0.5	0.7	1.2
Martley Rural	25	13020	2.8	1.9	2.0	1.5	1.6	1.4	1.6	1.7	0.8	1.9	1.2	0.9	0.7
Newent (part) Rural	—	1039	0.9	0.9	1.9	1.0	1.0	2.0	2.0	1.9	1.9	0.0	1.0	1.9	0.0
Pershore Rural	14	13270	1.9	1.8	1.6	1.5	1.3	1.0	1.5	2.9	1.7	1.0	0.5	0.6	0.5
Rock Rural	3	2296	1.9	1.9	0.9	0.5	0.9	0.5	0.9	0.4	2.7	1.3	0.5	0.9	0.0
Shipston-on-Stour Rural	4	4465	1.2	0.2	0.7	0.5	1.4	0.5	0.7	0.2	0.9	0.9	0.2	0.2	0.5
Stow-on-the-Wold (part) Rural	—	277	3.6	—	—	—	3.6	3.7	—	0.4	—	—	—	—	0.0
Tenbury Rural	—	4408	1.9	1.7	—	0.7	0.7	2.0	1.4	0.7	1.6	1.1	0.7	0.9	0.4
Tewkesbury (part) Rural	5	2095	2.7	0.9	1.9	1.4	1.4	1.9	0.9	—	1.4	0.4	0.4	0.5	0.5
Upton-on-Severn Rural	1	14000	6.5	1.8	3.0	2.2	2.3	1.7	2.2	1.3	1.6	1.8	1.0	1.1	0.6
Winchcombe (part) Rural	26	107	—	—	—	—	—	—	—	—	—	—	—	—	0.0
	501	309700	2.2	1.83	1.56	1.3	1.5	1.4	1.3	1.4	1.4	1.6	0.7	0.9	0.8

Deaths.

4. The Registrar-General gives the following number of deaths during 1928 :

Pulmonary	—	—	209
Non-Pulmonary	—	—	43
			—
			252
			—

5. The deaths since 1913 together with notifications and pulmonary death rates for a similar period are set out in Table III.

TABLE III.

Year.	Notifications. all forms.	Deaths.* all forms.	Pulmonary Death Rate per 1000 of population.
1913	889	270	0.66
1914	707	290	0.72
1915	661	275	0.74
1916	562	307	0.88
1917	671	315	1.02
1918	815	365	1.15
1919	657	320	0.85
1920	537	302	0.8
1921	471	274	0.74
1922	389	299	0.78
1923	456	262	0.68
1924	440	270	0.69
1925	386	260	0.72
1926	437	220	0.57
1927	430	267	0.69
1928	501	252	0.68

*As obtained from the Registrar General's return.

6. Apart from the abnormally low number of deaths in 1926 (220) the number in 1928 (252) was the lowest on record since the scheme has been in existence.

7. In last year's report it was stated that in roughly a quarter of the cases who died in 1927, the disease was so advanced or of so rapid a type when notified that no treatment could have been of any practical value.

8. The same remark applies to 1928. 322 cases of pulmonary tuberculosis were notified during the year and 82 of these had died by the 31st December. 51 of them died within three months of notification.

Deaths of unnotified cases.

9. Twenty patients died without being notified. Nine of these had obvious reasons why the notification was not sent in, but in eleven cases the usual letter was sent to the Practitioner. Seven were thought by the Doctor to have been notified previously. In two the diagnosis was only made at a post mortem and another after a fatal haemoptysis. One died in Hospital after an operation connected with Mesenteric glands.

Tuberculosis Regulations 1924 relating to Returns from Medical Officers of Health.

10. A summary of the returns received from local Medical Officers of Health in the County shows :

Remaining on Registers at 31st December 1928 :

	Males.	Females.	Total.
Pulmonary - -	602	529	1131
Non-Pulmonary - -	277	277	554
	879	806	1685

Institutional Treatment.

11. The year 1928 has been noted for the large number of cases recommended for Sanatorium treatment. We have had no difficulty in keeping the beds full during the whole year, even though there have been as many cases as in former years who refuse to accept a bed when offered. For a considerable period there has been a long waiting list, the average during 1928 being 15.

12. By reason of West Bromwich terminating their tenancy of beds at Knightwick Sanatorium, eight additional beds became available, and it was decided to reserve them for County cases, but to sublet two of them to Smethwick.

13. Tables IV. and V. show the number of beds available and the extent to which these were used during 1928.

14. Table VI. shows the immediate results of treatment.

Institutional Treatment.

TABLE IV.

	Observation. *	Pulmonary Tuberculosis.		Non-Pulmonary Tuberculosis.		Total
		"Sana- torium" Beds.	"Hos- pital" Beds.	Disease of Bones and Joints.	Other Con- ditions	
Adult Males	4	24	13	6		47
Adult Females	4	18	12	5		39
Children under 15	4	13	3	16		36
Total	12	55	28	27		122

* Beds used as required. The figures given in this column are taken on a given date and happen to be in excess of the average for the whole year.

TABLE V.
RETURN SHOWING THE EXTENT OF RESIDENTIAL TREATMENT.

			In Institutions on Jan. 1.	Admitted during the year.	Discharged during the year.	Died in the Institutions.	In Institutions on Dec. 31.
Number of Patients	Adults.	M.	30	160	135	21	34
		F.	22	101	85	7	31
	Child- ren.	M.	14	36	25	1	24
		F.	11	26	22	1	14
Number of Observation Cases	Adults	M.	1	11	6	—	6
		F.	3	15	13	—	5
	Child- ren.	M.	3	4	3	—	4
		F.	—	6	5	—	1
	Total		84	359	294	30	119

TABLE VI.

Annual Return showing the immediate results of treatment of patients and of observation and doubtful cases discharged from Residential Institutions during the year 1928.

Classification on admission to the Institution.	Condition at time of discharge.	Duration of Residential Treatment.												Total		
		Under 3 months.			3-6 months			6-12 months			More than 12 months					
		M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.			
PULMONARY TUBERCULOSIS.	Class T.B. minus	Quiescent - - -	2	2	1	1	2	-	-	-	-	-	-	8		
		Improved - - -	13	9	1	8	13	5	3	2	2	-	-	56		
		No material improvement - -	3	8	1	4	3	2	-	2	-	-	-	23		
		Died in Institution - -	2	-	1	1	-	-	1	-	-	-	-	5		
	Class T.B. plus Group 1.	Quiescent - - -	-	-	-	-	-	-	-	-	-	-	-	-		
		Improved - - -	6	2	-	9	1	-	1	2	-	-	-	21		
		No material improvement - -	3	1	-	-	1	-	1	-	-	-	-	6		
		Died in Institution - -	-	-	-	-	-	-	-	-	-	-	-	-		
	Class T.B. plus Group 2.	Quiescent - - -	-	-	-	-	-	-	-	-	-	-	-	-		
		Improved - - -	16	3	-	13	4	1	5	5	1	-	-	48		
		No material improvement - -	13	4	-	6	2	-	-	1	-	1	-	27		
		Died in Institution - -	5	2	-	1	-	-	-	-	-	-	-	8		
NON-PULMONARY TUBERCULOSIS.	Class T.B. plus Group 3.	Quiescent - - -	-	-	-	-	-	-	-	-	-	-	-	-		
		Improved - - -	3	-	-	1	-	1	-	-	-	-	-	5		
		No material improvement - -	5	1	1	1	1	-	1	-	-	-	-	10		
		Died in Institution - -	6	4	1	2	-	-	1	-	-	-	-	14		
	Bones and Joints	Quiescent - - -	1	-	-	-	1	1	1	1	1	-	1	7		
		Improved - - -	5	4	8	1	-	1	-	2	6	-	-	32		
		No material improvement - -	1	-	-	-	-	-	-	-	-	-	5	1		
		Died in Institution - -	-	-	-	1	-	-	1	-	-	-	-	2		
	Abdom- inal.	Quiescent - - -	-	-	-	-	-	-	1	-	-	-	-	1		
		Improved - - -	2	2	1	-	1	1	-	-	-	-	-	7		
		No material improvement - -	-	-	-	-	-	-	-	-	-	-	-	-		
		Died in Institution - -	-	1	-	-	-	-	-	-	-	-	-	1		
Peripheral Glands	Quiescent - - -	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Improved - - -	-	2	-	-	-	-	-	-	1	-	-	-	3		
	No material improvement - -	1	-	-	-	-	-	-	-	-	-	-	-	1		
	Died in Institution - -	-	-	-	-	-	-	-	-	-	-	-	-	-		
Observa- tion for purpose of diagnosis.	Quiescent - - -	-	-	-	-	1	-	-	-	-	-	-	-	1		
	Improved - - -	3	-	1	1	1	4	-	-	-	-	-	-	10		
	No material improvement - -	-	-	-	-	-	-	-	-	-	-	-	-	-		
	Died in Institution - -	-	-	-	-	-	-	-	-	-	-	-	-	-		
			under 1 week			1-2 weeks.			2-4 weeks			More than 4 weeks				
			Tuberculous - - -	-	1	-	-	-	-	-	-	1	2	7		2
				Non-tuberculous - - -	-	1	-	-	-	-	-	-	2	1		4
					Doubtful - - -	-	-	-	1	-	-	1	3	1		-

15. This Table shows that of those discharged from Institutions during the year :

- (1) 231 were pulmonary cases (60% with positive sputum)
 66 were non-pulmonary cases
 27 were observation cases

- (2) Of the 231 pulmonary cases :

137 were males (72% with positive sputum)
 76 were females (46% with positive sputum)
 18 were children (28% with positive sputum)

- (3) The condition on discharge of these 231 pulmonary cases was :

Quiescent	—	—	—	—	—	8
Improved	—	—	—	—	—	130
No material improvement			—	—	—	66
Died in Institutions		—	—	—	—	27

- (4) Non-pulmonary cases—Total 66.

Bones and Joints	—	—	—	—	—	42
Abdomen	—	—	—	—	—	9
Other organs	—	—	—	—	—	4
Peripheral glands		—	—	—	—	11

Refusals to accept Institutional treatment.

16. In spite of sending the following letter to patients just after they have been seen by the Tuberculosis Officer, we had 41 refusals during 1928 which was three more than the previous year. Each of these refusals means a delay on an average of three days before getting the bed filled.

“ Dear Sir or Madam,

“ On the recommendation of the Tuberculosis Officer your name
 “ has been entered on the waiting list for admission to one of the County
 “ Sanatoria.

“ In order that you may make the necessary preparations I am
 “ enclosing a list of the clothing etc. required. Should there be any
 “ reason why you cannot accept a bed when there is a vacancy kindly
 “ let me know by return of post ? ”

17. The reasons given by the patients for refusing to come when sent for were :

Too unwell to travel	—	—	—	—	10
Family and business reasons		—	—	—	4
Did not consider sanatorium treatment necessary				—	12
No reply to admission notice		—	—	—	3
No definite reason given	—	—	—	—	6
Postponed for time being	—	—	—	—	4
Away from home	—	—	—	—	1
Under private treatment	—	—	—	—	1
					—
					41
					—

Dispensary Treatment.

18. Table VII. sets out the Dispensaries, Doctors in attendance, days and hours, and numbers of cases who attended last year.

TABLE VII.
Dispensary Work.

Dispensary.	Address.	Medical Officer.	Day and Time.	Total No. of Attendances 1928	Average attendance per Session 1928.
Bromsgrove	Technical School, New Road	Dr. Turner	Tuesday, 3 p.m.	145	2·8
Evesham	Town Hall	Dr. Harthan	Tuesday, 10 a.m.	147	2·8
Halesowen	14 Laurel Lane	Dr. Turner	Wednesday, 5 p.m.	207	4·0
Kidderminster	19 Lion Street	Dr. Turner	Thursday, 2 p.m. & 5 p.m.	307	5·9
Oldbury	25 Church Street	Dr. Turner	Friday, 6.0 p.m.	452	9·0
Redditch	Nissen Hut, Elm Road	Dr. Turner	Monday, 3 p.m.	105	2·4
Stourbridge	Dispensary	Dr. Hanby	Monday, 5 p.m.	294	6·0
Worcester	29 Foregate Street	Dr. Clover	Wednesday, 3 p.m.	113	2·2

9. Table VIII. gives a summary of the work done at the Dispensaries during the year.

Diagnosis.	Pulmonary.						Non-Pulmonary.						Total.					
	Adults.			Children.			Adults.			Children.			Adults.			Children.		
	M.	F.		M.	F.		M.	F.		M.	F.		M.	F.		M.	F.	
A.—NEW CASES examined during the year (excluding contacts):																		
(a) Definitely tuberculous	111	84		12	11		33	24		30	29		144	108		42	40	
(b) Doubtfully tuberculous	—	—		—	—		—	—		—	—		50	45		30	25	
(c) Non-tuberculous	—	—		—	—		—	—		—	—		11	19		10	5	
B.—CONTACTS examined during the year:—																		
(a) Definitely tuberculous	6	12		3	7		1	—		2	2		7	12		5	9	
(b) Doubtfully tuberculous	—	—		—	—		—	—		—	—		11	29		26	22	
(c) Non-tuberculous	—	—		—	—		—	—		—	—		22	97		79	145	
C.—CASES written off the Dispensary Register as																		
(a) Cured	8	8		2	4		4	7		15	8		12	15		17	12	
(b) Diagnosis not confirmed or non-tuberculous (including cancellation of cases notified in error)	—	—		—	—		—	—		—	—		68	157		122	172	
D.—NUMBER OF PERSONS on Dispensary Register on December 31st:—																		
(a) Diagnosis completed	417	354		90	72		73	90		127	116		490	444		217	188	
(b) Diagnosis not completed	—	—		—	—		—	—		—	—		56	59		58	45	

TABLE VIII.—*Continued.*

1.	Number of persons on Dispensary Register on January 1st	—	1403
2.	Number of patients transferred from other areas and of “lost sight of” cases returned	— — — — —	35
3.	Number of patients transferred to other areas and cases “lost sight of”	— — — — —	108
4.	Died during the year	— — — — —	191
5.	Number of observation cases under A (b) and B (b) above in which period of observation exceeded 2 months	— —	89
6.	Number of attendances at the Dispensary (including Contacts)	—	1784
7.	Number of attendances of non-pulmonary cases at Orthopaedic Out-stations for treatment or supervision	— — —	364
8.	Number of attendances, at General Hospitals or other Institutions approved for the purpose, of patients for :		
	(a) “Light” treatment	— — — — —	5
	(b) Other special forms of treatment	— — —	—
9.	Number of patients to whom Dental Treatment was given, at or in connection with the Dispensary	— — — — —	5
10.	Number of consultations with medical practitioners :—		
	(a) At Homes of Applicants	— — — — —	277
	(b) Otherwise	— — — — —	228
11.	Number of other visits by Tuberculosis Officers to Homes	—	2025
12.	Number of visits by Nurses or Health Visitors to Homes for Dispensary Purposes	— — — — —	9305
13.	Number of—		
	(a) Specimens of sputum, etc., examined	— — —	866
	(b) X-Ray examinations made in connection with Dispensary work	— — — — —	79
	(c) Wassermann examinations made in connection with the Dispensary	— — — — —	11
14.	Number of Insured Persons on Dispensary Register on the 31st December	— — — — —	682
15.	Number of Insured Persons under Domiciliary Treatment on the 31st December	— — — — —	115
16.	Number of reports received during the year in respect of Insured Persons :—		
	(a) Form G.P. 17	— — — — —	6
	(b) Form G.P. 36	— — — — —	282

20. Tables XI. and XII. show the actual numbers of pulmonary and non-pulmonary cases on the register.

21. It will be seen that there were 933 pulmonary cases on the register at end of 1928, and that the number of positive cases was 385 and the number of negative cases 548, giving a percentage of 41 positive cases. If this figure were given for all areas in the Country it would serve as a useful comparative estimate of the diagnostic criteria in the different areas and of the real amount of infectious tubercle in those areas.

Contacts.

22. Contacts were examined as under :

			Males.	Females.	Total.
Adults	—	—	40	138	178
Children	—	—	110	176	286
			<hr/> 150	<hr/> 314	<hr/> 464

23. It was found that 33 of these contacts were suffering from tuberculosis—28 pulmonary and 5 non-pulmonary—a percentage of 7.1 of all contacts examined. 88 were doubtfully tuberculous and were put down for re-examination.

24. The group of Contacts examined is a selected group—special care being taken to follow up those on whom suspicious reports have been received.

25. The Tuberculosis Officer for the north of the County (Dr. H. Midgley Turner) has been making special enquiries into the question of Home contacts, and has supplied me with the following short report of his conclusions :

Home Contacts—by Dr. H. Midgley Turner.

“ An investigation was made into the proportion of cases of all forms of tuberculosis in which there was a history of definite “ house contact ” with a previous case of pulmonary tuberculosis.

“ *Results.*

“ Of 375 cases of pulmonary tuberculosis in adults 156 (41%) gave a definite contact history.

“ Of 54 cases of pulmonary tuberculosis in children (under 15) 40 (74%) gave a definite contact history.

“ Of 61 cases of non-pulmonary tuberculosis in adults 16 (26%) gave a definite contact history.

“ Of 97 cases of non-pulmonary tuberculosis in children (under 15) 41 (42%) gave a definite contact history.

“ Total number of cases of all forms of tuberculosis = 587 of which 253 (43%) gave a definite contact history.

“ This would indicate that in North Worcestershire the home is the main battleground on which tuberculosis must be fought.

“ In a series of 191 cases (147 cases of pulmonary tuberculosis and 44 cases of non-pulmonary tuberculosis) the interval between probable infection and morbidity was ascertained.

“ In the whole series (191 cases) it was found that 45% occurred while still in contact with the infecting case, 57% had occurred within 6 months of the death of the infecting case, 62% within 1 year and 84% within 5 years of the death of the infecting case.

“ In the series of 44 cases of non-pulmonary tuberculosis it was found that 68% developed while still in contact with the infecting case and 84% within one year of the death of the infecting case.

“ The explanation of the earlier occurrence of the cases of non-pulmonary tuberculosis lies in the fact that this group includes tuberculosis of the lymphatic glands, which being the first line of defence against tuberculosis would naturally tend to show evidences of disease earlier.

“ As a result of these and other observations it was estimated that out of every 1,000 contacts of infectious cases of pulmonary tuberculosis about 127 would ultimately develop some form of notifiable tuberculous disease, and of this number about 104 would develop the disease within five years of the death of the infecting case.

“ Thus there is a great field for preventive work amongst these contacts, particularly amongst the children. There can be no doubt that a residential open air school makes an ideal preventorium. An increase of such accommodation, to enable more of these children who are menaced by tuberculous infection to build up their resistance, could not fail to yield good results.

“ During the period 1st January 1927 to 31st December 1928, there were 509 children living in the same house as a T.B. positive case of Pulmonary Tuberculosis in the northern part of the County.”

“ All these cases undoubtedly get infected, but treatment at this stage would probably prevent many cases of tuberculosis in the future.”

Enviromental conditions.

26. During the year, 321 reports on new cases were obtained and in addition 110 reports on definite cases with positive sputum who came to our notice in previous years were sent in to the Office.

27. These reports have been carefully summarised as under :

	Definite case but sputum negative.	Sputum positive.	Non- Pulmonary.
Separate bed and room —	57	106	27
Separate bed, but sharing room	17	28	22
Sharing bed — —	58	68	48

28. In order to lessen infection, the Tuberculosis and Sanatorium Committee decided that, where room for an extra bed was available, a bedstead and mattress should be supplied on loan to those patients with positive sputum who were sharing a bed with someone else.

29. Nine bedsteads and beds have been supplied during 1928 which reduces the number in above Table sharing beds from 68 to 59.

30. The following defects were noted and as it was thought that these should be remedied, a note of them was sent to the local Medical Officer of Health :

Bad ventilation	—	—	4
Drains —	—	—	3
Dampness —	—	—	13
Stagnant water	—	—	2
Water supply	—	—	2
Uncleanliness	—	—	3
Sanitary arrangements	—	—	8
Repair —	—	—	2

31. It does not mean that we are entirely satisfied with the conditions at the rest of the houses, but it is felt that it is better to report to the Local Authorities only such defects as can be easily remedied, rather than to flood them with either the less urgent matters or defects which cannot be improved.

32. Nurse Layton, the whole-time Tuberculosis Health Visitor for the north of the County, reports as under :

“ In visiting tuberculous households in the north of the County
 “ one is struck by the imperfect sanitary arrangements and the over-
 “ crowding to which some of these households are subjected. This is
 “ more noticeable in some parts of the Halesowen District. The sanitary
 “ defects for the most part are not due to the faulty use of the conven-
 “ iences provided, but to faulty or inadequate provision of such con-
 “ veniences.

“ As regards overcrowding, there is not much scope for the use of
 “ outdoor shelters, owing to the fact that few of the patients have private
 “ land attached to the house. The bedsteads provided by the County
 “ Council for loan in such cases are proving a great boon. In all cases
 “ where a bedstead has been lent, it is appreciated and well cared for.

“ It is my experience that, with isolated exceptions, the tuberculous
 “ households in the area are eager to take advantage of any advice or
 “ assistance which will improve their home conditions and help to prevent
 “ the spread of infection.”

Extra nourishment.

33. 76 patients received food allowances during the year. No alteration has been made in the procedure of granting these allowances, except that each case is sent to the After-Care Representative for approval before being first issued and also at each quarter before a fresh voucher is issued.

Nurses Visits.

34. 9,305 visits were made to the homes of patients by the Health Visitors or Association Nurses. This number is less than formerly as for the last two years patients who are well and at work are visited less frequently.

35. In addition to the above, 967 special visits were made to 13 cases. These visits are definite nursing visits as distinct from the supervisory visits mentioned in the previous paragraph, and are only made to patients who are bedridden or require dressings.

Shelters.

36. There are now 44 shelters belonging to the County Council and each of these was in use during 1928. 18 transfers of shelters from one patient to another were made during the year.

Non-pulmonary Tuberculosis.

37. The arrangements for treatment of this class of case were set out fully in last year's report, and an increasingly large number of cases received treatment.

38. During the year, on the recommendation of the Orthopaedic Specialist, arrangements were made for a Massage and Remedial exercises clinic to be opened at Stourbridge. Special apparatus was fitted at 40 New Road and a Masseuse from the Birmingham Royal Cripples Hospital attends three times a week.

In-patient Treatment.

39. Patients were discharged from Hospitals as under :

Worcester General Infirmary	—	—	4
Kidderminster General Hospital	—	—	6
Birmingham Queens Hospital	—	—	7
Birmingham Royal Cripples Hospitals	—	—	16
Shropshire Orthopaedic Hospital	—	—	5
Warwickshire Orthopaedic Hospital	—	—	1
County Sanatoria	—	—	27
			—
			66
			—

40. Immediate results of treatment are included in Table VI.

Out-patient Treatment.

41. Attendances of cases of tuberculosis at the three County Clinics were as under :

Stourbridge	—	37 cases, 249 attendances.
Redditch	—	31 „ 84 „
Worcester	—	17 „ 57 „

42. In addition to the above, Miss Woods, the Orthopaedic Nurse, has been doing excellent work in the south of the County.

Prevention of Tuberculosis Regulations 1925.

43. These Regulations provide that no person suffering from tuberculosis in an infectious stage may undertake work connected with the supply of milk. It has not been necessary to report any case to the Local Authority for action under these Regulations.

Public Health Act 1925. Section 62.

44. This Section enables County Councils to obtain an order from Court to compulsorily send patients to Sanatoria for isolation purposes. No case has been dealt with in Worcestershire under this Section.

(Signed) H. GORDON SMITH,

M.A., M.B., B.Ch., D.P.H.,

Chief Tuberculosis Officer.

July, 1929.

TABLE XI.
PULMONARY

Condition.			Previous to 1926.					1926.					1927.					1928.				
			Class T.B. minus	Class T.B. plus				Class T.B. minus	Class T.B. plus				Class T.B. minus	Class T.B. plus				Class T.B. minus	Class T.B. plus			
				Group 1.	Group 2.	Group 3.	Total (Class T.B. plus)		Group 1.	Group 2.	Group 3.	Total (Class T.B. plus)		Group 1.	Group 2.	Group 3.	Total (Class T.B. plus)		Group 1.	Group 2.	Group 3.	Total (Class T.B. plus)
Cured.	Adults	M.	179	13	4	-	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F.	155	1	3	1	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chil- dren	M.	41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F.	45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Disease arrested.	Adults	M.	16	3	7	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F.	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Chil- dren	M.	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F.	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Disease not arrested.	Adults	M.	59	18	51	13	82	8	8	19	3	30	26	9	20	5	34	40	16	40	2	58
		F.	60	9	31	6	46	23	8	11	2	21	37	5	16	4	25	58	7	23	5	35
	Chil- dren	M.	22	1	3	2	6	14	-	1	-	1	11	-	-	1	1	19	-	-	-	-
		F.	17	2	3	-	5	6	-	-	-	-	7	-	-	1	1	15	-	-	1	1
Dead.	Adults	M.	77	13	151	254	418	17	1	14	39	54	19	2	12	23	37	10	1	8	14	23
		F.	89	5	75	240	320	8	-	8	33	41	25	1	9	29	39	12	1	5	5	11
	Chil- dren	M.	8	-	-	8	8	-	-	-	1	1	4	-	1	-	1	2	-	-	-	-
		F.	9	1	1	13	15	-	-	1	1	2	2	-	1	-	1	1	-	1	2	3
Condition not ascertained during Year			49	11	10	1	22	16	1	2	-	3	13	-	4	-	4	-	-	-	-	-
Lost sight of and otherwise removed from Dispensary Register			175	33	72	16	121	21	5	13	4	22	26	3	12	1	16	9	-	2	-	2
Totals - *			1033	110	411	554	*1075	113	23	69	83	175	170	20	75	64	159	166	25	79	29	133

* In addition to these totals and prior to 1921 there are

Dead - - - Unclassified 1159.

Lost sight of - - - Unclassified 496.

TABLE XII.
NON-PULMONARY.

Condition.			PREVIOUS TO 1926.					1926.					1927.					1928.					
			Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total	Bones and Joints.	Abdominal.	Other Organs.	Peripheral Glands.	Total.	
ALIVE.	Cured.	Adults	M.	39	8	5	16	68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
		F.	28	16	5	26	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
		Chil- dren	M.	25	21	6	31	83	-	-	-	-	-	-	-	-	-	-	-	-	-		
		F.	23	11	5	37	76	-	-	-	-	-	-	-	-	-	-	-	-	-			
	Disease arrested.	Adults	M.	3	-	-	-	3	2	3	-	2	7	-	2	-	2	4	-	-	-	-	
		F.	6	1	-	-	7	1	-	-	2	3	2	3	-	3	8	-	-	-	-		
		Chil- dren	M.	3	2	-	5	10	2	9	2	2	15	2	3	-	1	6	-	-	-	-	
		F.	7	2	1	1	11	2	5	-	1	8	3	-	-	5	8	-	-	-	-		
	Disease not arrested.	Adults	M.	10	-	1	1	12	2	-	1	2	5	3	2	-	1	6	9	6	6	5	26
		F.	10	2	3	4	19	5	1	-	1	7	4	1	1	4	10	7	7	1	9	24	
		Chil- dren	M.	16	2	-	5	23	6	2	-	1	9	5	2	-	7	14	8	9	1	13	31
		F.	15	6	3	5	29	3	1	1	2	7	3	3	-	2	8	8	13	2	12	35	
	Dead	Adults	M.	17	4	5	1	27	2	-	-	-	2	3	1	3	2	9	3	1	-	-	4
		F.	5	10	3	5	23	1	-	-	-	1	2	3	1	1	7	-	2	-	-	2	
		Chil- dren.	M.	7	10	5	3	25	-	3	1	1	5	1	1	6	-	8	-	2	-	-	2
		F.	1	6	2	-	9	-	-	-	1	1	-	2	6	-	8	-	-	1	-	-	1
Transferred to Pulmonary				1	1	1	-	3	-	1	-	1	2	-	-	-	-	-	-	-	-	-	
Condition not ascertained during Year				11	1	5	12	29	4	2	2	2	10	3	3	1	5	12	-	-	-	-	
Lost sight of or otherwise removed from Dispensary Register				34	9	5	25	73	13	6	-	6	25	9	3	1	6	19	4	2	-	1	7
Totals - *				261	112	55	177	605	43	33	7	24	107	40	29	19	39	127	39	42	11	40	132

